

Part 9

Supplying Mills of our company (ISO Certificates and Mill Test Certificate Samples)

China

1.1	Jiangsu Yonggang Group Co., Ltd.	CHA86	Y10 - Y50	9 pages
1.2	Guangzhou Panyu Yufeng Iron & Steel Co., Ltd.	CHA96	Y10 – Y40	8 pages
1.3	Guangdong Huamei Baohua New Material Development Co., Ltd.	CHA152	Y10 - Y40	8 pages
1.4	Guangdong Gangyuan Metal Industry Co. , Ltd.	CHA162	Y10 - Y16	4 pages
1.5	Guangxi Iron & Steel Group Co. Ltd	CHA164	Y10 - Y40	8 pages

Malaysia

4.1	Alliance Steel (M) Sdn. Bhd.	MAL20	Y16-Y25, Y40	5 pages
4.2	Alliance Steel (M) Sdn. Bhd.	MAL21	Y10 - Y40	3 pages

Qatar

5.1	Qatar Steel Company (Q.P.S.C)	QTR3	Y10 - Y40	8 pages
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Saudi Arabia

7.1	Saudi Iron and Steel Company (HADEED)	SDA8	Y10 - Y40	8 pages
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United Arab Emirates

9.1	Conares Metal Supply Limited	UAE2	Y10 - Y40	8 pages
9.2	Qatar Steel Company FZE	UAE4	Y10 - Y40	8 pages

Vietnam

10.1	Hoa Phat Hai Duong Steel Joint Stock Company	VNM4	Y10 - Y40	8 pages
10.2	Hoa Phat Dung Quat Steel Joint Stock Company	VNM5	Y10 - Y40	8 pages



质量管理体系认证证书

经北京国金衡信认证有限公司审核，确认

江苏永钢集团有限公司

统一社会信用代码：91320582142194488F

建立和实施了符合

GB/T 19001-2016/ISO 9001:2015

标准要求的质量管理体系。

体系覆盖的范围

产品和活动范围：

碳素、合金热轧圆（方、棒、线）钢，碳素、合金连铸圆（方）坯、钢锭的设计、生产和销售服务；钢筋混凝土用热轧带肋钢筋、钢筋混凝土用热轧光圆钢筋的生产和服务；生铁、球团矿、烧结矿、工业用气体、粒化高炉矿渣粉、生石灰的生产和服务。

地理位置：

江苏省张家港市南丰镇永联

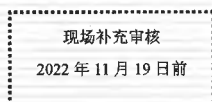
注：覆盖范围有生产许可或资质要求的产品以生产许可证或资质证书限定范围为准。

证书注册号：02222Q3018R4L

颁证日期：2022年5月20日

有效期：2022年5月20日至2025年5月19日

获证组织应按期接受年度监督审核；本证书与在方框内加贴GHC监督审核合格标识一并使用方为有效。



(授权代表)



中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C022-M



GHC地址：北京市海淀区大柳树富海中心3号楼307号

本证书信息可在国家认证认可监督管理委员会网站（www.cnca.gov.cn）和GHC网站（www.cmiqc.com）上查询。



江苏永钢集团有限公司产品质量证明书

Jiangsu Yonggang Group Co., Ltd. Mill Test Certificate



YC14-R-14047

Certificate No: 200327C00552

需方 Customer	WELMETAL RESOURCBS GROUP LTD				产品名称 Commodity	钢筋混凝土用热轧带肋钢筋 HIGH YIELD STEEL DEFORMED BARS			
合同号 Contract No.	A-0700-2012-021-DB		生产许可证号 Production Cert. No.		技术标准 Standard	BS 4448:2005/CS2:2012		综合判定 Comprehensive judgment	合格 Pass
牌号 Grade	B500B/500B		生产工艺 Manufacturing processes	淬火自回火 QST	钢筋标识	CHA86 //SI/ZE//			
提货日期 Date of Delivery	20200225	出库单号 No. of Delivery	SD20000079	交货状态 Condition of delivery	直条 Debar in straight				

轧制批号 Batch No.	炉号 Heat No.	产品规格 Size (mm)	生产日期 Producing Date	长度 Length (m)	件数 Bundles	重量 Weight (t)	化学成份(%) Chemical Composition													A01 屈服强度 MPa	A02 抗拉强度 MPa	A04 强屈比	A12 最大总伸长率 %	B05 反向弯曲试验 OK	Y91 每米重量 Kg	Y92 有效截面积	Z99 肋纹测试 OK
							C	Si	Mn	P	S	Coq	V	Cr	Mo	Ni	Cu	N									
							10 ⁻²	10 ⁻²	10 ⁻²	10 ⁻³	10 ⁻²	10 ⁻²	10 ⁻²	10 ⁻²	10 ⁻²	10 ⁻²	10 ⁻²	10 ⁻⁴									
B62003004001	20B002217	10	20200301	12	45	87.973	19	31	41	20	13	33	3	36	1	11	2	29	567 560 545	643 644 635	1.13 1.15 1.17	8.5 8.0 8.5	OK OK OK	0.600 0.594 0.599	76.30 75.60 76.30	OK OK OK	
B62003004002	20B002220	10	20200301	12	75	146.782	18	32	40	30	17	32	3	34	1	8	1	68	577 584 570	652 664 650	1.13 1.14 1.14	8.5 8.0 9.5	OK OK OK	0.598 0.598 0.594	76.10 76.10 75.00	OK OK OK	
B62003004003	20B002223	10	20200301	12	74	144.626	18	32	40	20	17	32	3	34	1	8	2	78	567 570 571	647 651 648	1.14 1.14 1.13	8.5 9.5 8.5	OK OK OK	0.601 0.597 0.597	76.40 70.00 75.00	OK OK OK	
合计 Total:						194	379.381																				

注释 Annotation	A91=屈服强度 Yield Strength(Re) A92=抗拉强度 Tensile Strength(Rm) A94=强屈比 ratio of Tensile and yield strength A12=最大总伸长率 Total elongation at maximum force B05=反弯试验 Reband Test Y91=每米重量 Mass per meter Ceq=[C]+[Mn]/6+[Cr]/5+[V]/5+[Mo]/5+([Cu]+[Ni])/15 Y02=有效截面积 Effective Cross sectional area Z00=肋纹测试 Surface Geometry Test
备注 Remarks	1. CARES认证范围包含: BS 4440:1997, BS 4440:2005和SS 560:2016。 2. 我司证实以上产品之肋纹测试结果符合BS4449:2005及CS2:2012标准, 肋纹测试结果采用辛普森公式计算。 3. 碳当量Ceq按照以下公式计算: Ceq=C+Mn/6+(Cr+V+Mo)/5+(Cu+Ni)/15。 4. ISO证书号: 02219Q3019R7L; ISO证书有效期: 2022-5-19。CNAS证书号: CNA313002; CNAS证书有效期: 2024-05-13。 5. The scope of CARES certification include: BS 4440:1997, BS 4440:2005 and SS 560:2016. 6. We hereby certify that the results of surface geometry measurement of above products are in compliance with standards BS4449:2005 AND CS2:2012, Surface Geometry results tested by "Simpson's formula". 7. The Carbon equivalent value Ceq computed using the following formula: Ceq=C+Mn/6+(Cr+V+Mo)/5+(Cu+Ni)/15. 8. ISO No.: 02219Q3019R7L; Date of Expiry ISO: 2022-5-19. CNAS No.: CNA313002; Date of Expiry CNAS: 2024-05-13

质量检验章(Seal):

销售电话(Sale Tel): 008651255819538 0080-512-5601955B

厂址(Address): 江苏省张家港市南丰镇永联(Yonglian Village, Nanfeng Town, Zhengjiegang City, Jiangsu, China)

检验(Test):

邮政编码(Post Code): 215520

制单(Signature): 袁媛

签发日期(Date of Issue): 20200325





江苏永钢集团有限公司产品质量证明书

Jiaugsu Youggang Grpup Co., Ltd. Mill Test Certificate



YG14-R-14047

Certificate No: 200324C00563

需方 Customer	WELMETAL RESOURCES GROUP LTD			产品名称 Commodity	钢筋混凝土用热轧带肋钢筋 HIGH YIELD STEEL DEFORMED BARS		
合同号 Contract No.	A-0705-2002-021-D0	生产许可证号 Production Cert. No.		技术标准 Standard	BS 4449:2005/CS2:2012		综合判定 Comprehensive judgment
牌号 Grade	B500B/500B	生产工艺 Manufacturing processes	淬火自回火 QST	钢筋标识	CHA86: //SI/ZE/ //A/ //B/ - //C/ //D/ //E/ //F/ //G/ //H/ //I/ //J/ //K/ //L/ //M/ //N/ //O/ //P/ //Q/ //R/ //S/ //T/ //U/ //V/ //W/ //X/ //Y/ //Z/		合格 Pass
提货日期 Date of Delivery	20200325	出库单号 No. of Delivery	SD20020079	交货状态 Condition of delivery	直条 Debar in straight		

轧制批号 Batch No.	炉号 Heat No.	产品规格 Size (mm)	生产日期 Producing Date	长度 Length (m)	件数 Bundles	重量 Weigh (t)	化学成份(%) Chemical Composition												A01 屈服强度 MPa	A02 抗拉强度 MPa	A04 强屈比	A12 最大总伸长率 %	B05 反弯试验 OK	Y01 每米重量 Kg	Y02 有效截面积	Z99 肋纹测试
							C	Si	Mn	P	S	Ceq	V	Cr	Mo	Ni	Cu	N								
							10 ⁻²	10 ⁻²	10 ⁻²	10 ⁻³	10 ⁻³	10 ⁻²	10 ⁻³	10 ⁻²	10 ⁻³	10 ⁻³	10 ⁻²	10 ⁻⁴								
B52003004001	20B602219	12	20200301	12	63	121.450	18	20	30	30	14	32	3	37	1	8	1	46	573 563 576	658 651 659	1.15 1.16 1.14	8.5 8.5 9.5	OK OK OK	0.873 0.863 0.875	111.20 100.00 111.40	OK OK OK
B52003004002	20B602222	12	20200301	12	77	148.383	18	30	30	27	15	31	3	33	1	8	1	33	590 563 589	669 649 668	1.13 1.15 1.13	9.5 9.9 9.9	OK OK OK	0.870 0.870 0.872	110.00 110.80 111.10	OK OK OK
B52003004003	20B602224	12	20200301	12	74	142.476	18	31	38	26	18	31	3	35	1	8	1	64	582 562 574	659 645 655	1.13 1.15 1.14	8.5 9.0 8.5	OK OK OK	0.876 0.869 0.871	111.60 110.70 111.00	OK OK OK
合计 Total:						214	412.309																			

注释 Annotation	A01=屈服强度 Yield Strength (Re) A02=抗拉强度 Tensile Strength (Rm) A04=强屈比 ratio of Tensile and yield strength A12=最大力总伸长率 Total elongation at maximum force B05=反弯试验 Reband Test Y01=每米重量 Mass per meter Ceq=[C]+[Mn]/6+[Cr]/5+[V]/5+[Mo]/5+([Cu]+[Ni])/15 Y02=有效截面积 Effective Cross sectional area Z99=肋纹测试 Surface Geometry Test
备注 Remarks	1. CARES认证范围包含: BS 4449:1997, BS 4449:2005和SS 560:2010. 2. 我司证实以上产品之肋纹测试结果符合BS 4440:2005及CS2:2012标准, 肋纹测试结果采用辛普森公式计算。 3. 碳当量Ceq按照以下公式计算: Ceq=C+Mn/6+(Cr+V+Mo)/5+(Cu+Ni)/15。 4. ISO证书号: 02219Q3019R7L; ISO证书有效期: 2622-5-10. CNAS证书号: CNASL3062; CNAS证书有效期: 2024-05-13。 5. The scope of CARES certification include: BS 4449:1997, BS 4440:2005 and SS 560:2016. 6. We hereby certify that the results of surface geometry measurement of above products are in compliance with standards BS 4440:2005 AND CS2:2012, Surface Geometry results tested by "Simpson's formula". 7. The Carbon equivalent value Ceq computed using the following formula: Ceq=C+Mn/6+(Cr+V+Mo)/5+(Cu+Ni)/15. 8. ISO No.: 02219Q3019R7L; Date of Expiry ISO: 2022-5-10. CNAS No.: CNASL3062; Date of Expiry CNAS: 2024-05-13

质量检验章(Seal)

销售电话(Sale Tel): 0086-512-58010860 0086-512-58610555

地址(Address): 江苏省张家港市南丰镇永联(Yonglian Village, Nanfeng Town, Zhangjiagang City, Jiangsu, China)

检验(Test):

邮政编码(Post Code): 215028

制单(Signature): 徐燕

签证日期(Date of Issue): 20200325





Jiangsu Yonggang Group Co., Ltd. Mill Test Certificate



Certificate No: 200324CD0505

需方 Customer	WELMETAL RESOURCES GROUP LTD					产品名称 Commodity	钢筋混凝土用热轧带肋钢筋 HIGH YIELD STEEL DEFORMED BARS										
合同号 Contract No.	A-0705-2002-021-D-B		生产许可证号 Production Cert. No.			技术标准 Standard	Q5 4449-2005/CS2-2012					综合判定 Comprehensive Judgment			合格 Pass		
牌号 Grade	B500E/502B		生产工艺 Manufacturing processes		淬火自回火 OST	钢筋标识											
提货日期 Date of Delivery	20200325	出库单号 No. of Delivery	SD20030079		交货状态 Condition of delivery	直条 Debaric straight	Rolling mark										

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注释 Annotation	A01=屈服强度 Yield Strength(R _e) A02=抗拉强度 Tensile Strength(R _m) A04=强屈比 ratio of Tensile and yield strength A12=最大力总伸长率 Total elongation at maximum force B05=反弯试验 Rebend Test Y01=每米重量 Mass per meter $Ceq = [C] + [Mn]/6 + [Cr]/5 + [V]/5 + [Mo]/5 + ([Cu] + [Ni])/15$	Y02=有效截面积 Effective Cross sectional area Z99=肋纹测试 Surface Geometry Test
备注 Remark	1、CARES认证范围包含：BS 4449:1907, BS 4449:2005和SS 560:2016。 2、我司证实以上产品之肋纹测试结果符合BS4449:2005及CS2:2012标准，肋纹测试结果采用辛普森公式计算。 3、碳当量Ceq按照以下公式计算：Ceq=C+Mn/6+ (Cr+V+Mo)/5+ (Cu+Ni)/15。 4、ISO证书号：02210Q3019R7L；ISO证书有效期：2022-5-10。CNAS证书号：CNASL3062；CNAS证书有效期：2024-05-13。 1.The scope of GARES certification include: BS 4449:1997, BS 4449:2005 and SS 500:2016. 2. We hereby certify that the results of surface geometry measurement of above products are in compliance with standards BS4449:2005 AND CS2:2012. Surface Geometry results tested by "Simpson's formula". 3. The Carbon equivalent value Ceq computed using the following formula: Ceq=C+Mn/6+ (Cr+V+Mo)/5+ (Cu+Ni)/15. 4.ISO No.: 02219Q3019R7L; Date of Expiry ISO: 2022-5-10. CNAS No.: CNASL3062; Date of Expiry CNAS: 2024-05-13	

质量检验章(Seal):
销售电话(Sales Tel): 0086-512-58610836 0086-512-53019588

检 验(Test):
 邮政编码(Post Code):215028

制单(Signature):徐燕
签证日期(Date of Issua): 20200325

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江苏永钢集团有限公司
JIANGSU YONGGANG GROUP CO., LTD.



Jiangsu Youggaug Group Co., Ltd. Mill Test Certificate



Certificate No: 200324C00567

需方 Customer	WELMETAL RESOURCES GROUP LTD				产品名称 Commodity	钢筋混凝土用热轧带肋钢筋 HIGH YIELD STEEL DEFORMED BARS				
合同号 Contract No.	A-0705-2002-021-D0		生产许可证号 Production Cert. No.		技术标准 Standard	BS 4449:2005/CS2:2012			综合判定 Comprehensive judgement	合格 Pass
牌号 Grade	B500RB/500D		生产工艺 Manufacturing processes	淬火自回火 QST	钢筋标识 Rolling mark	CHA86: //SL//ZE//////●-/-●/////////●/////////●-/-				
提货日期 Date of Delivery	20200325	出库单号 No. of Delivery	SD20030079	交货状态 Condition of delivery	直条 Debar in straight					

轧制批号 Batch No.	炉号 Heat No.	产品规格 Size (mm)	生产日期 Producing Date	长度 Length (m)	件数 Bundies	重量 Weight (t)	化学成份(%) Chemical Composition														A01	A02	A04	A12	B95	Y91	Y92	Z99		
							C	Si	Mn	P	S	Ceq	V	Cr	Mo	Ni	Cu	N	屈服强度	抗拉强度	强屈比	最大力总伸长率	反向弯曲试验	每米重量	有效截面积	肋纹测试				
							10 ⁻²	10 ⁻²	10 ⁻²	10 ⁻³	10 ⁻³	10 ⁻²	10 ⁻³	10 ⁻²	10 ⁻²	10 ⁻³	10 ⁻²	10 ⁻⁴	MPa	MPa		%		Kg						
B32003031001	20B404002	25	20200307	12	17	32.707	19	25	43	28	20	33	3	34	1	9	1	24	572 569 581	639 641 654	1.12 1.13 1.13	8.5 8.5 9.0	OK	3.767 3.767 3.762	479.90 479.00 479.20	OK OK OK				
B32003031002	20B404003	25	20200307	12	23	44.312	19	26	44	25	23	33	3	33	1	9	1	62	585 578 582	653 649 653	1.12 1.12 1.12	9.0 8.5 8.5	OK	3.753 3.753 3.769	478.10 478.10 480.10	OK OK OK				
B32003031003	20B404004	25	20200307	12	29	56.077	19	25	42	21	25	33	3	32	1	9	1	21	581 581 579	655 646 652	1.13 1.11 1.13	8.5 8.5 9.0	OK	3.772 3.772 3.795	480.50 480.50 483.40	OK OK OK				
合计Total:						69	133.096																							

注释 Annotation	A01=屈服强度 Yield Strength(R _e) A02=抗拉强度 Tensile Strength(R _m) A04=强屈比 ratio of Tensile and yield strength A12=最大力总伸长率 Total elongation at maximum force B05=反弯试验 Rebend Test Y01=每米重量 Mass per meter $Ceq = [C] + [Mn]/6 + [Cr]/5 + [V]/5 + [Mo]/5 + ([Cu] + [Ni])/15$
备注 Remarks	1、CARES认证范围包含: BS 4449:1997, BS 4449:2005和SS 569:2016。 2、我司证实以上产品之肋纹测试结果符合BS4440:2005及CS2:2012标准, 肋纹测试结果采用辛普森公式计算。 3、碳当量Ceq按照以下公式计算: $Ceq = C + Mn/6 + (Cr + V + Mo)/5 + (Cu + Ni)/15$ 。 4、ISO证书号: 02219Q3019R7L; ISO证书有效期: 2022-5-19。CNAS证书号: CNASL3062; CNAS证书有效期: 2024-05-13。 1.The scope of CARES certification include: BS 4449:1997, BS 4440:2005 and SS 560:2010. 2. We hereby certify that the results of surface geometry measurement of above products are in compliance with standards BS4440:2005 AND CS2:2012, Surface Geometry results tested by "Simpson's formula". 3.The Carbon equivalent value Ceq computed using the following formula: $Ceq = C + Mn/6 + (Cr + V + Mo)/5 + (Cu + Ni)/15$. 4.ISO No.: 02219Q3019R7L; Date of Expiry ISO: 2022-5-19. CNAS No.: CNASL3062; Date of Expiry CNAS: 2024-05-13

厂址 (Address): 江苏省张家港市南丰镇永联 (Yonglian Village, Nenfeng Town, Zhangjiagang City, Jiangsu, China)

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签证日期(Data of Issue): 20200325



江苏永钢集团有限公司
JIANGSU YONGGANG GROUP CO., LTD.

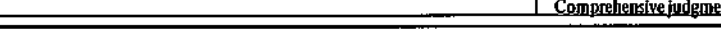


Jiangsu Yonggang Group Co., Ltd. Mill Test Certificate

YG14-R-14047

Certificate No: 200324C00575



需方 Customer	WELMETAL RESOURCES GROUP LTD				产品名称 Commodity	钢筋混凝土用热轧带肋钢筋 HIGH YIELD STEEL DEFORMED BARS				
合同号 Contract No.	A-0705-2007-021-DB		生产许可证号 Production Cert. No.		技术标准 Standard	BS 4440:2005/CS2-2012			综合判定 Comprehensive judgment	合格 Pass
牌号 Grade	B500B/500B		生产工艺 Manufacturing processes	淬火自回火 QST	钢筋标识	CHA86: 				
提货日期 Date of Delivery	20200325	出库单号 No. of Delivery	SD20030079	交货状态 Condition of delivery	直条 Debar in straight					

[illegible]

注释 Annotation	A01=屈服强度 Yield Strength(Re) A02=抗拉强度 Tensile Strength(Rm) A04=强屈比 ratio of Tensile and yield strength A12=最大力总伸长率 Total elongation at maximum force B05=反弯试验 Rebend Test Y01=每米重量 Mass per meter $Ceq = [C] + [Mn]/6 + [Cr]/5 + [V]/5 + [Mo]/5 + ([Cu] + [Ni])/15$ Y02=有效截面积 Effective Cross sectional area Z99=肋纹测试 Surface Geometry Test
备注 Remarks	1. CARES认证范围包含: BS 4449:1997, BS 4449:2005和SS 550:2015。 2. 我司证实以上产品之肋纹测试结果符合BS4449:2905及CS2:2012标准, 肋纹测试结果采用辛普森公式计算。 3. 碳当量Ceq按照以下公式计算: $Ceq = C + Mn/6 + (Cr + V + Mo)/5 + (Cu + Ni)/15$。 4. ISO证书号: 02219Q3019R7L; ISO证书有效期: 2022-5-19. CNAS证书号: CNASL3062; CNAS证书有效期: 2024-05-13。 1. The scope of CARES certification include: BS 4440:1997, BS 4440:2005 and SS 500:2010. 2. We hereby certify that the results of surface geometry measurement of above products are in compliance with standards BS4449:2005 AND CS2:2012, Surface Geometry results tested by "Simpson's formula". 3. The Carbon equivalent value Ceq computed using the following formula: $Ceq = C + Mn/6 + (Cr + V + Mo)/5 + (Cu + Ni)/15$. 4. ISO No.: 02219Q3010R7L; Date of Expiry ISO: 2022-5-10. CNAS No.: CNASL3062; Date of Expiry CNAS: 2024-05-13

质量检验章(Seal):
 销售电话(Sales Tel): 0086-512-58619830 0086-512-58019506
 厂址(Address): 江苏省张家港市南丰镇永联(Yongliu Vill)

检 验(Test):
邮政编码(Postal Code): 215028

制单(Signature):徐燕
 发证日期(Date of Issue): 20200325

第1页 共1页



江苏永钢集团有限公司
JIANGSU YONGGANG GROUP CO., LTD.



CERTIFICATE



Quality Management System Certificate

Certificate Number:00222Q23449R1M

CQM hereby certifies that

Guangzhou Panyu Yufeng Iron & Steel Co.,Ltd.

Unified Social Credit Identifier: 9144011561872000XY

Domicile:No.180, Shiyu Road, Dongchong Town, Nansha District, Guangzhou City, Guangdong, P.R.China

Certification Add.:No.180, Shiyu Road, Dongchong Town, Nansha District, Guangzhou City, Guangdong, P.R.China

the management system conform to

GB/T 19001-2016/ISO 9001:2015

This certificate is valid to the following scope:

Production of the reinforcement concrete hot rolled ribbed steel bars HRB500 10~40mm(B), HRB400E 10~40mm (B), HRB400 10~40mm (B), HRB500E 10~40mm (B) (excluding steel billet)

(The information of this certificate can be inquired on www.cnca.gov.cn or website of CQM. The continual validity of the certificate can be checked by Certificate Confirmation of surveillance.)

Ji Xiao Dong

Issued on: 2022-06-29

Expires on: 2025-07-07



中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C002-M



方圆标志认证集团
CHINA QUALITY MARK CERTIFICATION GROUP

地址:北京市海淀区增光路33号(100048) Address:No.33,Zengguang Road,Haidian District,Beijing,P.R. China(100048)

<http://www.cqm.com.cn>

AA 0066836

广州市番禺裕丰钢铁有限公司

GUANGZHOU PANYU YUFENG IRON AND STEEL CO., LTD.



产品质量证明书
MILL'S TEST CERTIFICATE



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商品备案号	(BAR PATTERN NO.) :	CHA96
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商品标志图	BAR PATTERN DRAWING
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客 户	(BUYER) :	TO WHOM IT MAY CONCERN
生 产 厂	(MILL) :	GUANGZHOU PANYU YUFENG IRON AND STEEL CO., LTD.
合 同 编 号	(CONTRACT REF) :	
商 品 名 称	(COMMODITY) :	PRIME HOT ROLLED ALLOY STEEL DEFORMED BARS
规 格	(SIZE*LENGTH) :	16MM*12M
数 量	(QUANTITY) :	MT

许可证	(PRODUCTION LICENCE CERTIFICATE REGISTRATION No.):XK05-001-00043	
船号	(BY VESSEL) :	
标准	(SPECIFICATION) :	BS4449:2005&CS2:2012, GRADE 500B
证书号	(ISO9001 NO) :	00213Q13269R4M
编号	(CERTIFICATE NO) :	
日期	(ISSUE DATE) :	

生 产 地 址	(ADDRESS) :	Guangzhou Panyu Yufeng Iron And Steel Co., Ltd. No.180,Shiyu Road,Dong Chong,Nansha District,Guangzhou P.R.China
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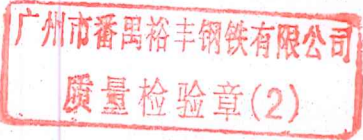
轧制批号		单重	横截面积	化学成分 (%)											力学性能					
HEAT No.		UNIT MASS	CROSS-SECTIONAL AREA (MM²)	CHEMICAL COMPOSITION(%)											MECHANICAL PROPERTIES					
		(KG/M)		碳	锰	磷	硅	硫	铬	镍	铜	钼	钒	氮	碳当量	屈服点	抗拉强度	强屈比	最大力下总伸长率	反弯
				C	Mn	P	Si	S	Cr	Ni	Cu	Mo	V	N	CEQ	YIELD POINT, Re (Mpa)	TENSILE STRENGTH, Rm (Mpa)	Rm/Re	TOTAL ELONGATION AT MAX FORCE Agt(%)	REBEND TEST
161-12865		1.554	198.0	0.23	0.85	0.043	0.33	0.035	0.19	0.05	0.19	/	/	/	0.42	590	700	1.19	14.0	OK
																600	705	1.18	13.5	OK
																595	710	1.19	13.5	OK
STATEMENTS																				

STATEMENTS:
THE RESULTS OF SURFACE GEOMETRY MEASUREMENT OR BEAM TEST ARE IN COMPLIANCE WITH CS2:2012

贡量检验章(STAMP OF THE CERTIFICATION)

签发人 (OPERATION) : Wangcai Lu

审核人 (CHECKER) : JunFu Liu



广州市番禺裕丰钢铁有限公司

GUANGZHOU PANYU YUFENG IRON AND STEEL CO., LTD.



产品质量证明书
MILL'S TEST CERTIFICATE



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商品备案号	(BAR PATTERN NO.):	CHA96
商品标志图	BAR PATTERN DRAWING	

客 户	(BUYER):	TO WHOM IT MAY CONCERN.
生 产 厂	(MILL):	GUANGZHOU PANYU YUFENG IRON AND STEEL CO., LTD.
合 同 编 号	(CONTRACT REF):	
商 品 名 称	(COMMODITY):	PRIME HOT ROLLED ALLOY STEEL DEFORMED BARS
规 格	(SIZE*LENGTH):	10MM*12M
数 量	(QUANTITY):	10.188 MT

许可证	(PRODUCTION LICENCE CERTIFICATE REGISTRATION No.):XK05-001-00043	
船号	(BY VESSEL):	
标准	(SPECIFICATION):	BS4449:2005&CS2:2012, GRADE 500B
证书号	(ISO9001 NO):	00219Q23543R0M
编号	(CERTIFICATE NO):	1
日期	(ISSUE DATE):	20220420

生 产 地 址	(ADDRESS):	Guangzhou Panyu Yufeng Iron And Steel Co., Ltd. No.180,Shiyu Road,Dong Chong,Nansha District,Guangzhou P.R.China																	
轧制批号	单重	横截面积	化学成分 (%)												力学性能				
HEAT No.	UNIT MASS	CROSS-SECTIONAL AREA (MM ²)	CHEMICAL COMPOSITION(%)												MECHANICAL PROPERTIES				
	(KG/M)		碳	锰	磷	硅	硫	铬	镍	铜	钼	钒	氮	碳当量	屈服点	抗拉强度	强屈比	最大力下总伸长率	反弯
			C	Mn	P	Si	S	Cr	Ni	Cu	Mo	V	N	CEQ	YIELD POINT, Re (Mpa)	TENSILE STRENGTH, Rm (Mpa)	Rm/Re	TOTAL ELONGATION AT MAX FORCE Agt(%)	REBEND TEST
221-10588	0.614	78.2	0.21	1.15	0.027	0.33	0.023	0.06	0.05	0.11	0.009	0.010	0.005	0.44	555	665	1.20	11.5	OK
															550	665	1.21	12.5	OK
															540	660	1.22	12.5	OK
221-10589	0.609	77.6	0.21	1.20	0.020	0.36	0.018	0.06	0.05	0.10	0.009	0.010	0.005	0.44	535	655	1.22	12.0	OK
															550	670	1.22	12.5	OK
															550	675	1.23	12.5	OK
221-10590	0.612	78.0	0.22	1.09	0.023	0.32	0.018	0.06	0.05	0.10	0.009	0.010	0.005	0.44	560	690	1.23	12.0	OK
															555	675	1.22	12.0	OK
															550	670	1.22	12.5	OK

STATEMENTS:

THE RESULTS OF SURFACE GEOMETRY MEASUREMENT OR BEAM TEST ARE IN COMPLIANCE WITH CS2:2012



签发人 (OPERATION) : BaoLongFeng

审核人 (CHECKER) : GuoCanYun

广州市番禺裕丰钢铁有限公司

GUANGZHOU PANYU YUFENG IRON AND STEEL CO., LTD.



产品质量证明书
MILL'S TEST CERTIFICATE



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商品备案号	(BAR PATTERN NO.) :	CHA96
商品标志图	BAR PATTERN DRAWING	

客 户	(BUYER) :	TO WHOM IT MAY CONCERN
生 产 厂	(MILL) :	GUANGZHOU PANYU YUFENG IRON AND STEEL CO., LTD.
合 同 编 号	(CONTRACT REF) :	
商 品 名 称	(COMMODITY) :	PRIME HOT ROLLED ALLOY STEEL DEFORMED BARS
规 格	(SIZE*LENGTH) :	20MM*12M
数 量	(QUANTITY) :	MT

许可证	(PRODUCTION LICENCE CERTIFICATE REGISTRATION No.): XK05-001-00043	
船号	(BY VESSEL) :	
标准	(SPECIFICATION) :	BS4449:2005&CS2:2012, GRADE 500B
证书号	(ISO9001 NO) :	00213Q13269R4M
编号	(CERTIFICATE NO) :	
日期	(ISSUE DATE) :	

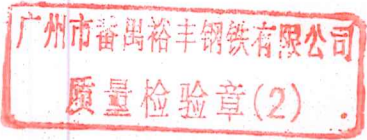
生产地址	(ADDRESS) :	Guangzhou Panyu Yufeng Iron And Steel Co., Ltd. No.180,Shiyu Road,Dong Chong,Nansha District,Guangzhou P.R.China																	
轧制批号	单重	横截面积	化学成分 (%)												力学性能				
HEAT No.	UNIT MASS	CROSS-SECTIONAL AREA (MM ²)	CHEMICAL COMPOSITION(%)												MECHANICAL PROPERTIES				
	(KG/M)		碳	锰	磷	硅	硫	铬	镍	铜	钼	钒	氮	碳当量	屈服点	抗拉强度	强屈比	最大力下总伸长率	反弯
			C	Mn	P	Si	S	Cr	Ni	Cu	Mo	V	N	CEQ	YIELD POINT, Re (Mpa)	TENSILE STRENGTH, Rm (Mpa)	Rm/Re	TOTAL ELONGATION AT MAX FORCE Agt(%)	REBEND TEST
161-13032	2.405	306.4	0.22	0.80	0.030	0.30	0.043	0.18	0.06	0.15	/	/	/	0.41	590	700	1.19	14.0	OK
															585	695	1.19	13.5	OK
															595	710	1.19	13.5	OK

STATEMENTS:
THE RESULTS OF SURFACE GEOMETRY MEASUREMENT OR BEAM TEST ARE IN COMPLIANCE WITH CS2:2012

质量检验章(STAMP OF THE CERTIFICATION)

签发人 (OPERATION) : Wangcai Lu

审核人 (CHECKER) : JunFu Liu



广州市番禺裕丰钢铁有限公司

GUANGZHOU PANYU YUFENG IRON AND STEEL CO., LTD.



产品质量证明书
MILL'S TEST CERTIFICATE



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商品备案号	(BAR PATTERN NO.) :	CHA96
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商品标志 图	BAR PATTERN DRAWING
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客 户	(BUYER) :	TO WHOM IT MAY CONCERN	
生 产 厂	(MILL) :	GUANGZHOU PANYU YUFENG IRON AND STEEL CO., LTD.	
合 同 编 号	(CONTRACT REF) :		
商 品 名 称	(COMMODITY) :	PRIME HOT ROLLED ALLOY STEEL DEFORMED BARS	
规 格	(SIZE*LENGTH) :	32MM*12M	
数 量	(QUANTITY) :	MT	

生产地址	(ADDRESS)	Guangzhou Panyu Yufeng Iron And Steel Co., Ltd. No.180,Shiyu Road,Dong Chong,Nansha District,Guangzhou P.R.China
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轧制批号	单重	横截面积
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HEAT No.	UNIT MASS	CROSS-SECTIONAL AREA (MM ²)
	(KG/M)	

化学成分 (%)

CHEMICAL COMPOSITION(%)

力学性能

MECHANICAL PROPERTIES

		(KG/M)	AREA (MM²)	碳	锰	磷	硅	硫	铬	镍	铜	钼	钒	氮	碳当量	屈服点	抗拉强度	强屈比	最大力下总伸长率	反弯
				C	Mn	P	Si	S	Cr	Ni	Cu	Mo	V	N	CEQ	YIELD POINT, Re (Mpa)	TENSILE STRENGTH, Rm (Mpa)	Rm/Re	TOTAL ELONGATION AT MAX FORCE Agt(%)	REBEND TEST
161-12942	6.251	796.3	0.23	0.85	0.043	0.33	0.035	0.19	0.05	0.19	/	/	/	0.42	555	655	1.18	12.5	OK	
															560	655	1.17	13.0	OK	
															565	660	1.17	13.0	OK	
STATEMENTS:																				

STATEMENTS:

THE RESULTS OF SURFACE GEOMETRY MEASUREMENT OR BEAM TEST ARE IN COMPLIANCE WITH CS2:2012

质量检验章(STAMP OF THE CERTIFICATION)

签发人 (OPERATION): Wangcai Lu

审核人 (CHECKER): JunFu Liu

广州市番禺裕丰钢铁有限公司
质量检验章(2)

CERTIFICATE



Quality Management Systems Certificate

Certificate Number: 00221Q21637R0M

CQM hereby certifies that

Guangdong Huamei Baohua New Material Development Co.,Ltd.

United Social Credit Code: 914418253379602265

Domicile:(From Number Two of Qingyuan City Caiyuan Hardware Casting Co., Ltd.), The Jurisdiction of the Jiepai Villagers Committee, Shijiao Town, Qingcheng District, Qingyuan City, Guangdong, P.R.China

Certification Add.:(From Number Two of Qingyuan City Caiyuan Hardware Casting Co., Ltd.), The Jurisdiction of the Jiepai Villagers Committee, Shijiao Town, Qingcheng District, Qingyuan City, Guangdong, P.R.China(511500)

has implemented and maintains a Quality Management System which fulfils the requirements of the following standards

GB/T 19001-2016/ISO 9001:2015

Quality management systems---Requirements

This certificate is valid to the following product(s)/service:

Production of steel bars for the reinforced concrete (excluding steel slabs): general hot-rolled bars

Issued on: 2021-03-23

Effective date: 2021-03-23

Validity date: 2024-03-22

Registration Number: CQM-44-2016-0032-0001

The validity of the certificate can be checked on www.cnca.gov.cn, *Certificate Confirmation* and CQM website

Ji Xiao Dong

CQM is a member of:

— I Net —
THE INTERNATIONAL CERTIFICATION NETWORK



GB/T 19001



中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C002-M

CHINA QUALITY MARK CERTIFICATION GROUP

Address: No.33, Zengguang Road, Haidian District, Beijing, 100048, P.R. China

<http://www.cqm.com.cn>

D 0062212

广东华美宝华新材料发展有限公司
质量证明书

GuangDong Huamei Baohua New Material Development Co., Ltd.
Mill's Test Certificate

Buyer: Welmetal Resources Group Limited

Description of Goods: Hot-Rolled Ribbed Steel Bars for the Reinforcement of Concrete

Size(Diameter) 10 mm

Length 12 m

Quantity 401.196 MTS

Bundles 202 BUNDLES

Manufacturer: GuangDong Huamei Baohua New Material Development Co., Ltd.

Certificate Number: WR2204002-10

Date of Issuance: 28 April 2022

Quality: CS2:2012, Grade 500B

Contract Number: HYL-P2203004



Production Licence Certificate
Registration No: XK05-001-00090



The Mill Has Been Found To Conform To
The Quality System Standard: ISO 9001:2015
Certificate Registration No : 00221Q21637R0M



Accreditation Certificate Of China National
Accreditation Board For Laboratories

Heat number	Mass (kg/m)	Bundles	Weight (mt)	Cross-Sectional Area (mm ²)	Chemical Composition %												Mechanical Properties				
					C	Si	Mn	P	S	Cr	Ni	Mo	Cu	V	N	Carbon Equivalent Value (CEV)	Yield strength MPa	Tensile Strength MPa	Total Elongation at max. force Agt %	Tensile/Yield Strength Ratio Rm/Re	Rebend Test
22210027	0.613	28	55.611	78.5	0.23	0.31	1.06	0.012	0.018	0.05	0.04	<0.01	0.12	0.01	0.005	0.43	545/550/555	670/660/665	12.5/12.0/12.5	1.23/1.20/1.20	ok
22210028	0.612	29	57.504	78.5	0.23	0.31	1.12	0.022	0.017	0.06	0.04	<0.01	0.11	0.01	0.005	0.44	555/555/550	670/675/665	11.5/12.5/12.5	1.21/1.22/1.21	ok
22210029	0.614	29	57.691	78.5	0.22	0.33	1.15	0.011	0.010	0.07	0.04	<0.01	0.12	0.01	0.005	0.44	550/560/565	655/660/665	12.5/12.0/11.5	1.19/1.18/1.18	ok
22210030	0.612	29	57.504	78.5	0.23	0.31	1.13	0.009	0.016	0.06	0.03	<0.01	0.11	0.01	0.005	0.44	540/550/550	660/665/670	12.5/12.0/12.5	1.22/1.21/1.22	ok
22210031	0.612	29	57.504	78.5	0.23	0.34	1.06	0.012	0.020	0.05	0.04	<0.01	0.12	0.01	0.005	0.43	560/555/550	670/665/660	11.5/12.5/11.0	1.20/1.20/1.20	ok
22210032	0.613	29	57.597	78.5	0.23	0.32	1.08	0.012	0.022	0.06	0.04	<0.01	0.11	0.01	0.005	0.43	560/555/555	675/670/675	12.0/12.0/12.5	1.21/1.21/1.22	ok
22210033	0.615	29	57.785	78.5	0.24	0.29	1.01	0.018	0.017	0.07	0.04	<0.01	0.12	0.01	0.005	0.43	565/570/550	685/680/675	11.5/12.5/12.5	1.21/1.19/1.23	ok

(NOTE):The copy of quality certificate is ineffective

WE CERTIFY THAT THE MATERIAL SUPPLIED COMPLIES WITH THE REQUIREMENTS AND HAVE BEEN TESTED AT THE FREQUENCY SPECIFIED IN CS2:2012, Grade 500B.

THE RESULTS OF THE SURFACE GEOMETRY MEASUREMENT ARE IN COMPLIANCE WITH CS2:2012.

Manufacturing Process Route:

Made in China

CEQ = C + $\frac{Mn}{6}$ + $\frac{Cr + Mo + V}{5}$ + $\frac{Ni + Cu}{15}$



(CHA152)

SURVEYOR:



广东华美宝华新材料发展有限公司
质量证明书

GuangDong Huamei Baohua New Material Development Co., Ltd.
Mill's Test Certificate

Buyer: Welmetal Resources Group Limited
Description of Goods: Hot-Rolled Ribbed Steel Bars for the Reinforcement of Concret
Size(Diameter) 12 mm Certificate Number: WR2211026-12
Length 12 m Date of Issuance: 28 November 2022
Quantity 98.376 MTS Quality: CS2:2012, Grade 500B
Bundles 51 BUNDLES Contract Number: HYL-P2211026
Manufacturer: GuangDong Huamei Baohua New Material Development Co., Ltd.



Production Licence Certificate
Registration No: XK05-001-00090



The Mill Has Been Found To Conform To
The Quality System Standard: ISO9001:2015
Certificate Registration No :00221Q21637R0M



Accreditation Certificate Of China National
Accreditation Board For Laboratories

Heat number	Mass (kg/m)	Bundles	Weight (mt)	Cross-Sectional Area (mm ²)	Chemical Composition %											Mechanical Properties					
					C	Si	Mn	P	S	Cr	Ni	Mo	Cu	V	N	Carbon Equivalent Value (CEV)	Yield strength MPa	Tensile Strength MPa	Total Elongation at max. force Agt %	Tensile/Yield Strength Ratio Rm/Re	Rebend Test
22210221	0.871	6	11.602	113.1	0.24	0.35	0.98	0.024	0.033	0.09	0.03	0.00	0.08	0.01	0.001	0.43	555/575/585	665/680/685	13.5/13.0/12.5	1.20/1.18/1.17	ok
22210222	0.868	25	48.174	113.1	0.23	0.37	0.96	0.022	0.031	0.08	0.03	0.00	0.08	0.01	0.001	0.42	560/585/575	670/690/685	13.0/12.0/12.0	1.20/1.18/1.19	ok
22210223	0.869	20	38.600	113.1	0.24	0.36	0.96	0.020	0.026	0.08	0.03	0.00	0.09	0.01	0.001	0.43	555/575/570	670/690/680	13.5/13.0/13.0	1.21/1.20/1.19	ok
					BLANK																

(NOTE):The copy of quality certificate is ineffective

WE CERTIFY THAT THE MATERIAL SUPPLIED COMPILES WITH THE REQUIREMENTS OF AND HAVE BEEN
TESTED AT THE FREQUENCY SPECIFIED IN CS2:2012, Grade 500B.

CEV = C + $\frac{Mn}{6}$ + $\frac{Cr + Mo + V}{5}$ + $\frac{Ni + Cu}{15}$

|||||4E15M|SIZE||
(CHA152)

SURVEYOR:



广东华美宝华新材料发展有限公司
质量证明书

GuangDong Huamei Baohua New Material Development Co., Ltd.
Mill's Test Certificate

Buyer: Welmetal Resources Group Limited

Description of Goods: Hot-Rolled Ribbed Steel Bars for the Reinforcement of Concrete

Size(Diameter) 16 mm

Length 12 m

Quantity 64.244 MTS

Bundles 33 BUNDLES

Certificate Number: WR2206001-16

Date of Issuance: 24 June 2022

Quality: CS2:2012, Grade 500B

Contract Number: HYL-P2206011

Manufacturer: GuangDong Huamei Baohua New Material Development Co., Ltd.



Production Licence Certificate
Registration No: XK05-001-00090



The Mill Has Been Found To Conform To
The Quality System Standard: ISO9001:2015
Certificate Registration No :00221Q21637R0M



Accreditation Certificate Of China National
Accreditation Board For Laboratories

Heat number	Mass (kg/m)	Bundles	Weight (mt)	Cross-Sectional Area (mm ²)	Chemical Composition %												Mechanical Properties				
					C	Si	Mn	P	S	Cr	Ni	Mo	Cu	V	N	Carbon Equivalent Value (CEV)	Yield strength MPa	Tensile Strength MPa	Total Elongation at max. force Agt %	Tensile/Yield Strength Ratio Rm/Re	Rebend Test
22210066	1.548	17	33.158	201.0	0.19	0.32	0.86	0.011	0.010	0.06	0.04	<0.01	0.12	0.01	0.005	0.36	570/575/590	690/690/705	12.5/12.5/12.0	1.21/1.20/1.19	OK
22210067	1.542	16	31.086	201.0	0.20	0.32	0.86	0.011	0.010	0.06	0.04	<0.01	0.12	0.01	0.005	0.37	560/565/560	670/675/670	12.5/13.0/13.0	1.20/1.19/1.20	OK
								BLANK													

(NOTE): The copy of quality certificate is ineffective

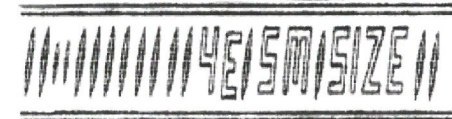
WE CERTIFY THAT THE MATERIAL SUPPLIED COMPLIES WITH THE REQUIREMENTS AND HAVE BEEN TESTED AT THE FREQUENCY SPECIFIED IN CS2:2012, Grade 500B.

THE RESULTS OF THE SURFACE GEOMETRY MEASUREMENT ARE IN COMPLIANCE WITH CS2:2012.

Manufacturing Process Route:

Made in China

$$CEQ = C + \frac{Mn}{6} + \frac{Cr + Mo + V}{5} + \frac{Ni + Cu}{15}$$



(CHA152)

SURVEYOR:



广东华美宝华新材料发展有限公司
质量证明书

GuangDong Huamei Baohua New Material Development Co., Ltd.
Mill's Test Certificate

Buyer: Welmetal Resources Group Limited

Description of Goods: Hot-Rolled Ribbed Steel Bars for the Reinforcement of Concrete

Size(Diameter) 20 mm

Certificate Number: WR2208002-10

Length 12 m

Date of Issuance: 4 August 2022

Quantity 235.213 MTS

Quality: CS2:2012, Grade 500B

Bundles 114 BUNDLES

Contract Number: HYL-P2207014

Manufacturer: GuangDong Huamei Baohua New Material Development Co., Ltd.



Production Licence Certificate
Registration No: XK05-001-00090



The Mill Has Been Found To Conform To
The Quality System Standard: ISO9001:2015
Certificate Registration No : 00221Q21637R0M



Accreditation Certificate Of China National
Accreditation Board For Laboratories

Heat number	Mass (kg/m)	Bundles	Weight (mt)	Cross-Sectional Area (mm ²)	Chemical Composition %												Mechanical Properties				
					C	Si	Mn	P	S	Cr	Ni	Mo	Cu	V	N	Carbon Equivalent Value (CEV)	Yield strength MPa	Tensile Strength MPa	Total Elongation at max. force Agt %	Tensile/Yield Strength Ratio Rm/Re	Rebend Test
22210110	2.466	29	60.072	314.2	0.22	0.36	1.17	0.012	0.011	0.07	0.04	<0.01	0.12	0.01	0.005	0.44	560/565/595	670/670/700	12.0/11.0/10.5	1.20/1.19/1.18	OK
22210111	2.458	29	59.877	314.2	0.20	0.37	1.19	0.011	0.010	0.05	0.04	<0.01	0.12	0.01	0.005	0.42	570/585/555	675/690/665	10.0/9.5/11.5	1.18/1.18/1.20	OK
22210112	2.460	29	59.926	314.2	0.20	0.37	1.18	0.011	0.010	0.06	0.04	<0.01	0.11	0.01	0.005	0.42	585/585/580	690/695/680	9.5/9.5/10.0	1.18/1.19/1.17	OK
22210113	2.440	27	55.339	314.2	0.20	0.38	0.85	0.010	0.006	0.05	0.04	<0.01	0.12	0.01	0.005	0.36	575/570/580	680/675/680	11.0/11.5/10.0	1.18/1.18/1.17	OK
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(NOTE): The copy of quality certificate is ineffective

WE CERTIFY THAT THE MATERIAL SUPPLIED COMPLIES WITH THE REQUIREMENTS AND HAVE BEEN TESTED AT THE FREQUENCY SPECIFIED IN CS2:2012, Grade 500B.

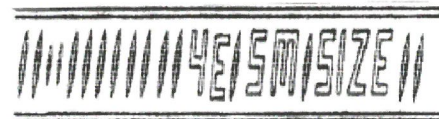
THE RESULTS OF THE SURFACE GEOMETRY MEASUREMENT ARE IN COMPLIANCE WITH CS2:2012.

THE RELATIVE RIB AREA, f_r , FOR RIBBED STEEL REINFORCING BARS ARE CALCULATED BY USING THE SIMPSON'S RULE FORMULA.

Manufacturing Process Route:

Made in China

$$CEQ = C + \frac{Mn}{6} + \frac{Cr + Mo + V}{5} + \frac{Ni + Cu}{15}$$



(CHA152)

SURVEYOR:



广东华美宝华新材料发展有限公司
质量证明书

GuangDong Huamei Baohua New Material Development Co., Ltd.
Mill's Test Certificate

Buyer: Welmetal Resources Group Limited
Description of Goods: Hot-Rolled Ribbed Steel Bars for the Reinforcement of Concrete
Size(Diameter) 25 mm
Length 12 m
Quantity 99.342 MTS
Bundles 51 BUNDLES
Certificate Number: WR2211026-25
Date of Issuance: 24 November 2022
Quality: CS2:2012, Grade 500B
Contract Number: HYL-P2211026
Manufacturer: GuangDong Huamei Baohua New Material Development Co., Ltd.



Production Licence Certificate
Registration No: XK05-001-00090



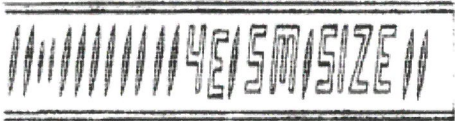
The Mill Has Been Found To Conform To
The Quality System Standard: ISO 9001:2015
Certificate Registration No : 00221Q21637R0M



Accreditation Certificate Of China National
Accreditation Board For Laboratories

Heat number	Mass (kg/m)	Bundles	Weight (mt)	Cross-Sectional Area (mm ²)	Chemical Composition %											Mechanical Properties					
					C	Si	Mn	P	S	Cr	Ni	Mo	Cu	V	N	Carbon Equivalent Value (CEV)	Yield strength MPa	Tensile Strength MPa	Total Elongation at max. force Agt %	Tensile/Yield Strength Ratio Rm/Re	Rebend Test
22210159	3.778	29	56.534	490.8	0.24	0.38	0.96	0.022	0.031	0.08	0.03	0.00	0.08	0.00	0.001	0.42	605/605/610	690/695/700	10.5/10.0/9.5	1.14/1.15/1.15	OK
22210160	3.771	22	42.808	490.8	0.25	0.36	0.96	0.023	0.031	0.08	0.03	0.00	0.08	0.00	0.001	0.43	600/610/605	690/700/695	10.5/9.0/10.0	1.15/1.15/1.15	OK
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(NOTE): The copy of quality certificate is ineffective
WE CERTIFY THAT THE MATERIAL SUPPLIED COMPLIES WITH THE REQUIREMENTS AND HAVE BEEN TESTED AT THE FREQUENCY SPECIFIED IN CS2:2012, Grade 500B.
THE RESULTS OF THE SURFACE GEOMETRY MEASUREMENT ARE IN COMPLIANCE WITH CS2:2012.
Manufacturing Process Route:
Made in China
$$CEQ = C + \frac{Mn}{6} + \frac{Cr + Mo + V}{5} + \frac{Ni + Cu}{15}$$



(CHA152)



SURVEYOR:

广东华美宝华新材料发展有限公司 质量证明书

GuangDong Huamei Baohua New Material Development Co., Ltd.
Mill's Test Certificate

Buyer: Welmetal Resources Group Limited

Description of Goods: Hot-Rolled Ribbed Steel Bars for the Reinforcement of Concrete

Size(Diameter) 32 mm

Length 12 m

Quantity 99.206 MTS

Bundles 52 BUNDLES

Manufacturer: GuangDong Huamei Baohua New Material Development Co., Ltd.

Certificate Number: WR2211026-32

Date of Issuance: 25 November 2022

Quality: CS2:2012, Grade 500B

Contract Number: HYL-P2211026



Production Licence Certificate
Registration No: XK05-001-00090



The Mill Has Been Found To Conform To
The Quality System Standard: ISO9001:2015
Certificate Registration No : 00221Q21637R0M



Accreditation Certificate Of China National
Accreditation Board For Laboratories

Heat number	Mass (kg/m)	Bundles	Weight (mt)	Cross-Sectional Area (mm ²)	Chemical Composition %											Mechanical Properties					
					C	Si	Mn	P	S	Cr	Ni	Mo	Cu	V	N	Carbon Equivalent Value (CEV)	Yield strength MPa	Tensile Strength MPa	Total Elongation at max. force Agt %	Tensile/Yield Strength Ratio Rm/Re	Rebend Test
22210161	6.114	29	55.319	804.2	0.25	0.36	0.96	0.023	0.031	0.08	0.03	0.00	0.08	0.00	0.001	0.43	575/575/575	680/675/685	11.5/12.0/12.5	1.18/1.17/1.19	OK
22210162	6.116	23	43.886	804.2	0.24	0.37	0.96	0.022	0.031	0.08	0.03	0.00	0.08	0.00	0.001	0.42	580/575/590	685/685/700	12.5/11.5/12.0	1.18/1.19/1.19	OK
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(NOTE): The copy of quality certificate is ineffective

WE CERTIFY THAT THE MATERIAL SUPPLIED COMPLIES WITH THE REQUIREMENTS AND HAVE BEEN TESTED AT THE FREQUENCY SPECIFIED IN CS2:2012, Grade 500B.

THE RESULTS OF THE SURFACE GEOMETRY MEASUREMENT ARE IN COMPLIANCE WITH CS2:2012.

Manufacturing Process Route:

Made in China

$$CEQ = C + \frac{Mn}{6} + \frac{Cr + Mo + V}{5} + \frac{Ni + Cu}{15}$$



(CHA152)

SURVEYOR:



广东华美宝华新材料发展有限公司
质量证明书

GuangDong Huamei Baohua New Material Development Co., Ltd.
Mill's Test Certificate

Buyer: Welmetal Resources Group Limited

Description of Goods: Hot-Rolled Ribbed Steel Bars for the Reinforcement of Concrete

Size(Diameter) 40 mm

Length 12 m

Quantity 248.389 MTS

Bundles 127 BUNDLES

Certificate Number: WR2208001-40

Date of Issuance: 1 August 2022

Quality: CS2:2012, Grade 500B

Contract Number: HYL-P2207014

Manufacturer: GuangDong Huamei Baohua New Material Development Co., Ltd.



Production Licence Certificate
Registration No: XK05-001-00090



The Mill Has Been Found To Conform To
The Quality System Standard: ISO9001:2015
Certificate Registration No : 00221Q21637R0M



Accreditation Certificate Of China National
Accreditation Board For Laboratories

Heat number	Mass (kg/m)	Bundles	Weight (mt)	Cross-Sectional Area (mm ²)	Chemical Composition %												Mechanical Properties				
					C	Si	Mn	P	S	Cr	Ni	Mo	Cu	V	N	Carbon Equivalent Value (CEV)	Yield strength MPa	Tensile Strength MPa	Total Elongation at max. force Agt %	Tensile/Yield Strength Ratio Rm/Re	Rebend Test
22210105	9.590	29	56.734	1256.6	0.22	0.34	1.15	0.012	0.012	0.06	0.04	0.00	0.08	0.00	0.001	0.43	530/535/535	665/670/670	12.0/11.5/11.0	1.25/1.25/1.25	OK
22210106	9.586	29	56.711	1256.6	0.20	0.37	1.20	0.011	0.010	0.08	0.03	0.00	0.08	0.00	0.002	0.42	550/545/545	680/675/675	10.0/10.5/11.0	1.24/1.24/1.24	OK
22210107	9.588	29	56.723	1256.6	0.20	0.38	1.17	0.011	0.010	0.05	0.04	0.00	0.09	0.00	0.001	0.41	535/530/530	670/665/665	11.5/12.0/12.0	1.25/1.25/1.25	OK
22210108	9.584	29	56.699	1256.6	0.22	0.37	1.13	0.011	0.009	0.06	0.04	0.00	0.07	0.00	0.001	0.43	540/545/535	680/685/675	10.0/10.5/11.0	1.26/1.26/1.26	OK
22210109	9.591	11	21.522	1256.6	0.21	0.36	1.18	0.013	0.011	0.06	0.04	0.00	0.08	0.00	0.002	0.43	535/540/540	670/685/680	11.0/10.5/10.5	1.25/1.27/1.26	OK
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(NOTE): The copy of quality certificate is ineffective

WE CERTIFY THAT THE MATERIAL SUPPLIED COMPLIES WITH THE REQUIREMENTS AND HAVE BEEN TESTED AT THE FREQUENCY SPECIFIED IN CS2:2012, Grade 500B.

THE RESULTS OF THE SURFACE GEOMETRY MEASUREMENT ARE IN COMPLIANCE WITH CS2:2012.

THE RELATIVE RIB AREA, f_R, FOR RIBBED STEEL REINFORCING BARS ARE CALCULATED BY USING THE SIMPSON'S RULE FORMULA.

Manufacturing Process Route:

Made in China

$$CEQ = C + \frac{Mn}{6} + \frac{Cr + Mo + V}{5} + \frac{Ni + Cu}{15}$$



(CHA152)

SURVEYOR:

检验专用章

CERTIFICATE



Quality Management System Certificate

Certificate Number:00221Q22178R1M

CQM hereby certifies that

Guangdong Gangyuan Metal Industry Co.,Ltd.

Unified Social Credit Identifier: 91445200586319296D

Domicile:Xianmei Science Park, Zhulin Village, Meiyun Street, Rongcheng District, Jieyang City, Guangdong, P.R.China

Certification Add.:Xianmei Science Park, Zhulin Village, Meiyun Street, Rongcheng District, Jieyang City, Guangdong, P.R.China

the management system conform to

GB/T 19001-2016/ISO 9001:2015

This certificate is valid to the following scope:

Production of hot rolled steel bars for reinforced concrete (excluding billets): hot rolled ribbed bar HRB400/HRB400E (6-10 mm) (wire rod)/(10-25 mm) (straight bar), hot rolled plain round steel bar HPB300 (8-10 mm) (wire rod)

(The information of this certificate can be inquired on www.cnca.gov.cn or website of CQM. The continual validity of the certificate can be checked by Certificate Confirmation of surveillance.)

Ji Xiao Dong

Issued on: 2021-04-19

Expires on: 2024-08-06

Reissue on: 2022-05-24



中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C002-M



方圆标志认证集团

CHINA QUALITY MARK CERTIFICATION GROUP

地址:北京市海淀区增光路33号 (100048) Address:No.33,Zengguang Road,Haidian District,Beijing,P.R. China(100048)

<http://www.cqm.com.cn>

AA 0062319



扫描全能王 创建



广东港源金属实业有限公司产品质量证明书

Guangdong Gangyuan Metal Industry Co., Ltd. Mill Test Certificate

Certificate No.:GY22071001

需方 Customer						产品名称 Commodity	钢筋混凝土用热轧带肋钢筋 HOT-ROLLED RIBBED STEEL BARS FOR THE REINFORCEMENT OF CONCRETE			
合同号 Contract No.						技术标准 Standard	BS4449:2005/CS2: 2012		综合判定 Comprehensive judgment	合格 Pass
牌号 Grade	B500B/500B		生产工艺 Manufacturing processes	淬火自回火 QST		钢筋标识 Bar Pattern	/////5//EY//10////////			
提货日期 Date of Delivery		出库单号 No. of Delivery		交货状态 Condition of delivery	直条 Debar in straight					

轧制批号	炉号	产品规格	生产日期	长度	件数	重量	化学成份(%) chemical composition											A01 屈服 强度	A02 抗拉 强度	A04 强 屈 比	A12 最大 力总 伸长 率	B05 反向 弯曲 试验	Y01 每 米 重 量	Y02 有效 截面 积	Z99 肋 纹 测 试																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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GY2207081		10	20220710	12	23	58.880	22	36	107	16	26	44	18	8	2	143	12	67	557	663	1.19	7.6	OK	0.598	76.00	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
GY2207082		10	20220710	12	21	53.550	22	42	105	17	24	43	15	7	1	150	11	57	572	675	1.18	8.7	OK	0.598	76.00	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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GY2207083		10	20220710	12	21	53.739	21	39	105	16	21	42	16	7	2	143	11	51	557	668	1.20	9.1	OK	0.598	76.35	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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制单(Signature): 陈泽秋

销售电话(Sales Tel): 0663-8805777

厂址(Address): 广东省揭阳市榕城区梅云街道竹林村仙梅科技园 (XianMei Science Park, Zhulin Village, Meiyun Street, Rongcheng District, Jieyang City, Guangdong, P.R.China)

负责人(Principal): 陈哲锐

邮政编码(Post Code): 522000

质量检验章(Seal):

签证日期(Date of Issue): 22020710



广东港源金属实业有限公司产品质量证明书

Guangdong Gangyuan Metal Industry Co., Ltd. Mill Test Certificate

Certificate No.: GY22071101

需方 Customer						产品名称 Commodity	钢筋混凝土用热轧带肋钢筋 HOT-ROLLED RIBBED STEEL BARS FOR THE REINFORCEMENT OF CONCRETE			
合同号 Contract No.						技术标准 Standard	BS4449:2005/CS2: 2012		综合判定 Comprehensive judgment	合格 Pass
牌号 Grade	B500B/500B		生产工艺 Manufacturing processes	淬火自回火 QST		钢筋标识 Bar Pattern	////5//EY//12////////			
提货日期 Date of Delivery		出库单号 No. of Delivery		交货状态 Condition of delivery	直条 Debar in straight					

轧制批号 Batch Nd.	炉号 Heat No.	产品规格 Size (mm)	生产日期 Producing Date	长度 Length (m)	件数 Bundles	重量 Weight (t)	化学成份(%) chemical composition												A01 屈服强度 MPa	A02 抗拉强度 MPa	A04 强屈比	A12 最大力总伸长率 %	B05 反向弯曲试验	Y01 每米重量 Kg	Y02 有效截面积	Z99 肋纹测试
							C	Si	Mn	P	S	Ceq	V	Cr	Mo	Ni	Cu	N								
							10 ⁻²	10 ⁻²	10 ⁻²	10 ⁻³	10 ⁻³	10 ⁻²	10 ⁻³	10 ⁻²	10 ⁻³	10 ⁻²	10 ⁻³	10 ⁻²								
GY2207106		12	20220711	12	22	56.342	23	37	103	19	21	44	17	8	1	144	12	70	546	650	1.19	9.2	OK	0.860	109.58	OK
GY2207107		12	20220711	12	21	53.634	22	40	103	17	24	43	15	7	1	150	12	45	553	664	1.20	9.8	OK	0.860	109.58	OK
							557	657	1.18	8.7	0.860	109.58	OK													
							559	660	1.18	7.6	0.860	109.29	OK													
GY2207108		12	20220711	12	20	51.120	22	40	103	17	27	43	16	7	2	147	10	59	560	672	1.20	7.6	OK	0.860	109.29	OK
							543	641	1.18	9.3	0.857	109.92	OK													
							538	646	1.20	7.7	0.857	109.92	OK													
合计 Total:						63	161.096																			
注释 Annotation	A01=屈服强度 Yield Strength (Re) A02=抗拉强 Tensile Strength(Rm) A04=强屈比 ratio of Tensile and yield strength A12=最大力总伸长率 Total elongation at maximum force												B05=反向弯曲试验 Rebend Test Y01=每米重量 Mass per meter Y02=有效截面积 Effective Cross sectional area Z99=肋纹测试 Surface Geometry Test													
备注 Remarks	1、我司证实以上产品之肋纹测试结果符合 BS4449:2005 及 CS2:2012 标准, 肋纹测试结果采用辛普森公式计算。(WE CERTIFY THAT THE MATERIAL SUPPLIED AND COMPLIED WITH THE REQUIREMENT AND HAS BEEN TESTED AT THE FREQUENCY SPECIFIED IN BS4449:2005 & CS2:2012. THE RESULTS OF THE SURFACE GEOMETRY MEASUREMENT ARE IN COMPLIANCE WITH CS2:2012. THE RELATIVE RIB AREA, fR, FOR RIBBED STEEL REINFORCING BARS ARE CALCULATED BY USING THE SIMPSON'S RULE FORMULA.) 4、碳当量 Ceq 按照以下公式计算: Ceq=C+Mn/6+(Cr+V+Mo)/5+(Cu+Ni)/15. (The carbon equivalent Value Ceq is calculated according to the following formula:Ceq=C+Mn/6+(Cr+V+Mo)/5+(Cu+Ni)/15 . 5、ISO 9001 证书号: 00221Q22178R1M; 证书有效期: 2024-08-06. (ISO 9001 No:00221Q22178R1M;Date of Expiry ISO 9001:2024-08-06.)																									

制单(Signature): 陈泽秋
销售电话(Sales Tel): 0663-8805777
厂址(Address): 广东省揭阳市榕城区梅云街道竹林村仙梅科技园 (XianMei Science Park, Zhulin Village, Meiyun Street, Rongcheng District, Jieyang City, Guangdong, P.R.China)

负责人(Principal): 陈哲锐
邮政编码(Post Code): 522000

质量检验章(Seal):
签证日期(Data of Issue): 22020711



广东港源金属实业有限公司产品质量证明书

Guangdong Gangyuan Metal Industry Co., Ltd. Mill Test Certificate

Certificate No.: GY22071501

需方 Customer						产品名称 Commodity	钢筋混凝土用热轧带肋钢筋 HOT-ROLLED RIBBED STEEL BARS FOR THE REINFORCEMENT OF CONCRETE			
合同号 Contract No.						技术标准 Standard	BS4449:2005/CS2: 2012		综合判定 Comprehensive judgment	合格 Pass
牌号 Grade	B500B/500B		生产工艺 Manufacturing processes	淬火自回火 QST		钢筋标识 Bar Pattern	////5//EY//16////////			
提货日期 Date of Delivery		出库单号 No. of Delivery		交货状态 Condition of delivery	直条 Debar in straight					

轧制批号 Batch Nd.	炉号 Heat No.	产品 规格 Size (mm)	生产 日期 Produci ng Date	长度 Length (m)	件数 Bundle s	重量 Weigh (t)	化学成份(%) chemical composition											A01 屈服 强度 MPa	A02 抗拉 强度 MPa	A04 强屈 比	A12 最大 力总 伸长 率	B05 反向 弯曲 试验	Y01 每米 重量 Kg	Y02 有效 截面 积	Z99 肋纹 测试																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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GY2207237		16	20220715	12	21	53.928	22	39	103	17	24	43	18	8	2	148	12	54	530	625	1.18	9.5	OK	1.534	195.81	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
GY2207238		16	20220715	12	20	50.860	21	38	106	19	22	43	16	8	2	144	12	63	544	647	1.19	8.7	OK	1.534	195.81	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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GY2207239		16	20220715	12	21	53.445	23	41	101	17	25	44	16	8	2	146	11	57	544	642	1.18	8.6	OK	1.532	194.95	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
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							540	643	1.19	8.2	1.531	195.75	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								

制单(Signature): 陈泽秋
销售电话(Sales Tel): 0663-8805777
厂址(Address): 广东省揭阳市榕城区梅云街道竹林村仙梅科技园 (XianMei Science Park, Zhulin Village, Meiyun Street, Rongcheng District, Jieyang City, Guangdong, P.R.China)

负责人(Principal):陈哲锐
邮政编码(Post Code):522000

质量检验章(Seal):
签证日期(Data of Issue): 22020715



QUALITY MANAGEMENT SYSTEM CERTIFICATE

Audit and Confirm by Beijing Grand Honour Certification Co., Ltd.

Guangxi Iron & Steel Group Co., Ltd.

Unified social credit code: 9145000078213554XP

Has established and implement a quality system in conformity with

GB/T 19001-2016/ISO 9001:2015 standard.

The scope covered by this management system:

Products and activities:

Design, development and production of raw iron, continuous casting billet, hot rolled plate strip, hot rolled steel bar (including hot rolled straight bar and hot rolled coil bar), hot rolled round steel, hot rolled disk strip, cold rolled plate strip, cold rolled hot plated galvanized plate strip products.

Physical locations:

196 Beibu Gulf Avenue, Port District, Fangchenggang City.

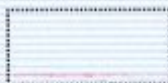
Note: The products covered in this scope shall be confirmed to the requirement of associated licenced document or qualified certificate.

(This document shall be effective together with the certificate No.02222Q3032R6L)

Certificate registration:02222Q3032(2)R6L Issuing date: Jun.20, 2022 Effective date:From Jun.20, 2022 to Jun.19, 2025

The certified organization should accept the annual surveillance audit on schedule. This certificate shall be used in conjunction with annually surveillance audit stamp issued by GHC.

On-site supplementary
review before
Dec.19, 2022



(Authorized Representative)



中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C022-M



GHC Add: Fuhai Center, Building No. 3, Room 307,
Daliushu Road, Haidian District, Beijing, China.

The validity of this certificate can be verified from the following website www.cnca.gov.cn & www.cmqc.com



产品质量证明书

MILL'S TEST CERTIFICATE

QR/GT 02.15.01

生产企业：广西钢铁集团有限公司

PROD. MANUFACTURER: GUANGXI IRON AND STEEL GROUP COMPANY LIMITED

公司地址：中国广西防城港市港口区北部湾大道196号

ADDRESS: 196 BEIBU GULF AVENUE, PORT DISTRICT, FANGCHENGANG, GUANGXI, CHINA

销售电话 (TEL) : 0772-2592278/3601/6272
 生产电话 (FAX) : 0772-2592122

售后服务 (TEL) 0772-2592132
 售后服务 (FAX) 0772-2592724

售站传真 (FAX) 0772-2592784

产地: 中国广西防城港 ORIGIN:FANGCHENGANG, GUANGXI, CHINA

收货单位(CONSIGNEE):		TO WHOM IT MAY CONCERN					证书编号(CERTIFICATE NO.):					BW2023029005761										
订货单位(CUSTOMER):		TO WHOM IT MAY CONCERN					合同编号(CONTRACT NO.):					FBH23-00658000300										
产品名称(PRODUCT):		钢筋混凝土用 热轧带肋钢筋 (Steel for the reinforcement of concrete Hot rolled ribbed bars)					装车单号(LOADING NO.):					BB422303296										
标准 (SPECIFICATION):		CS2:2012					车号 涂色(TRAIN NO.& COLOR):					桂PC1061										
牌号及交货状态(STEEL GRADE & DELIVERY CONDITION):		500B 淬火自回火(QST)					发货日期(DEPARTURE DATE):					20230219										
生产工艺路线(MANUFACTURING PROCESSES ROUTE):		转炉→炉后吹氩→(精炼)→连铸→棒材线																				
序号 No.	生产日期 Production Date	炉批号 Heat No.	规格 Size mm	捆数 Bundle	重量 Weight t	化学成分Chemical Composition(熔炼分析Heat Analysis)(%) (1= $\times 10^{-1}$, 2= $\times 10^{-2}$, 3= $\times 10^{-3}$, 4= $\times 10^{-4}$, 5= $\times 10^{-5}$)																
						C	Si	Mn	P	S	Nb	N	V	Ni	Cr	Mo	Cu	Ceq				
1	20230204	23BA00630001	Φ10*12000	3	5.676	19	19	40	16	15	0	3	2	3	4	1	2	27				
2																						
3																						
4																						
5																						
合计 Total				3	5.676	精度级别(PRECISION GRADE)																
序号 No.	屈服强度 Yield Strength	抗拉强度 Tensile Strength	强屈比 Tensile/Yield Strength Ratio	最大力总伸长率 Total Elongation At Maximum Force		反弯 Rebend		肋纹测试 Surface Geometry Test		横截面积 Cross Sectional Area		米重 Mass Per Metre										
	Re/MPa	Rm/MPa	R ^m /R ^e	Agf/%		D=4a																
1	559/562/557	628/629/621	1.12/1.12/1.11	11.0/11.0/10.5		OK/OK/OK		OK/OK/OK		75.41/75.41/75.41		0.592/0.592/0.592										
2																						
3																						
4																						
5																						
注释(Notes)		Ceq=[C]+[Mn]/6+([Cr]+[Mo]+[V])/5+([Cu]+[Ni])/15																				
示意图 (Sketch Map):																						
备注 (Remarks):		1、兹证明我方所提供的材料符合CS2:2012标准要求, 并已按CS2:2012规定的频率进行试验。表面形状测量结果符合CS2:2012的要求。带肋钢筋的相对肋面积R根据Simpson公式计算得出。2、ISO 9001证书号:02222Q3032-(2)R6L; ISO 9001证书有效期:2025-6-19。 1.We certify that the material supplied and complied with the requirement and has been tested at the frequency specified in CS2:2012. The results of the surface geometry measurement are in compliance with CS2:2012. The relative rib area, R, for ribbed steel reinforcing bars are calculated by using the Simpson's rule formula. 2.ISO 9001 No:02222Q3032-(2)R6L;Date of Expiry ISO 9001 2025-6-19.																				

制表单位: 质量部

TABLED BY

质量部部长:

MANAGER

制表日期 20230219

DATE _____

共1页, 第1页

PAGE 1 Of 1 PAGES



产品质量证明书

MILL'S TEST CERTIFICATE

0221501

生产企业: 广西钢铁集团有限公司
PROD. MANUFACTURER: GUANGXI IRON AND STEEL GROUP COMPANY LIMITED
公司地址: 中国广西防城港市港口区北部湾大道196号
ADDRESS: 196 BEIBU GULF AVENUE, PORT DISTRICT, FANGCHENG GANG, GUANGXI, CHINA
销售电话 (TEL): 0772-2592278/3601/6272
售后服务 (TEL): 0772-2592132
售后服务 (FAX): 0772-2592784
产地: 中国广西防城港 ORIGIN: FANGCHENG GANG, GUANGXI, CHINA

收货单位(CONSIGNEE):		TO WHOM IT MAY CONCERN										证书编号(CERTIFICATE NO.):		BW2023029005761							
订货单位(CUSTOMER):		TO WHOM IT MAY CONCERN										合同编号(CONTRACT NO.):		FBH23-00658000300							
产品名称(PRODUCT):		钢筋混凝土用 热轧带肋钢筋 (Steel for the reinforcement of concrete Hot rolled ribbed bars)										装车单号(LOADING NO.):		BB422303296							
标准 (SPECIFICATION):		CS2:2012										车号 涂色(TRAIN NO.& COLOR)		桂PC1061							
牌号及交货状态(STEEL GRADE & DELIVERY CONDITION):		500B 淬火自回火(QST)										发货日期(DEPARTURE DATE)		20230219							
生产工艺路线(MANUFACTURING PROCESSES ROUTE):		转炉→炉后吹氩→(精炼)→连铸→棒材线																			
序号 No.	生产日期 Production Date	炉批号 Heat No.	规格 Size mm	捆数 Bundle	重量 Weight t	化学成分Chemical Composition(熔炼分析Heat Analysis)(%) (1=×10 ⁻¹ , 2=×10 ⁻² , 3=×10 ⁻³ , 4=×10 ⁻⁴ , 5=×10 ⁻⁵)															
						C	Si	Mn	P	S	Nb	N	V	Ni	Cr	Mo	Cu	Ceq			
1	20230203	23BB00431002	Φ12*12000	1	2.494	20	23	68	16	17	1	5	2	2	4	0	2	32			
2																					
3																					
4																					
5																					
合计 Total				1	2.494	精度级别(PRECISION GRADE)															
序号 No.	屈服强度 Yield Strength	抗拉强度 Tensile Strength	强屈比 Tensile/Yield Strength Ratio	最大力总伸长率 Total Elongation At Maximum Force		反弯 Rebend		肋纹测试 Surface Geometry Test		横截面积 Cross Sectional Area		米重 Mass Per Metre									
	Re/MPa	Rm/MPa	R ^m /R ^e	Agt/%		D=4a				mm ²		kg									
1	552/542/545	620/610/616	1.12/1.12/1.13	11.0/11.5/12.0		OK/OK/OK		OK/OK/OK		111.72/111.72/111.72		0.877/0.877/0.877									
2																					
3																					
4																					
5																					
注释(Notes):		Ceq=[C]+[Mn]/6+([Cr]+[Mo]+[V])/5+([Cu]+[Ni])/15																			
示意图 (Sketch Map):																					
备注 (Remarks):		1、兹证明我方所提供的材料符合CS2:2012标准要求, 并已按CS2:2012规定的频率进行试验。表面形状测量结果符合CS2:2012的要求。带肋钢筋的相对肋面积fR根据Simpson公式计算得出。2、ISO 9001证书号:02222Q3032-(2)R6L; ISO 9001证书有效期:2025-6-19。 1.We certify that the material supplied and complied with the requirement and has been tested at the frequency specified in CS2:2012. The results of the surface geometry measurement are in compliance with CS2:2012. The relative rib area, fR, for ribbed steel reinforcing bars are calculated by using the Simpson's rule formula. 2.ISO 9001 No:02222Q3032-(2)R6L;Date of Expiry ISO 9001 2025-6-19.																			



产品质量证明书

MILL'S TEST CERTIFICATE

0061 02/15/01

生产企业: 广西钢铁集团有限公司
PROD. MANUFACTURER: GUANGXI IRON AND STEEL GROUP COMPANY LIMITED
公司地址: 中国广西防城港市港口区北部湾大道196号
ADDRESS: 196 BEIBU GULF AVENUE, PORT DISTRICT, FANGCHENG GANG, GUANGXI, CHINA
销售电话 (TEL): 0772-2592278/3601/6272
售后服务 (TEL): 0772-2592132
售后服务 (FAX): 0772-2592784
产地: 中国广西防城港 ORIGIN: FANGCHENG GANG, GUANGXI, CHINA

收货单位(CONSIGNEE):		TO WHOM IT MAY CONCERN										证书编号(CERTIFICATE NO.):		BW2023029005761									
订货单位(CUSTOMER):		TO WHOM IT MAY CONCERN										合同编号(CONTRACT NO.):		FBH23-00658000300									
产品名称(PRODUCT):		钢筋混凝土用 热轧带肋钢筋 (Steel for the reinforcement of concrete Hot rolled ribbed bars)										装车单号(LOADING NO.):		BB422303296									
标准 (SPECIFICATION):		CS2:2012										车号 涂色(TRAIN NO. & COLOR):		桂PC1061									
牌号及交货状态(STEEL GRADE & DELIVERY CONDITION):				500B 淬火自回火(QST)						发货日期(DEPARTURE DATE):				20230219									
生产工艺路线(MANUFACTURING PROCESSES ROUTE):				转炉→炉后吹氩→(精炼)→连铸→棒材线																			
序号 No.	生产日期 Production Date	炉批号 Heat No.	规格 Size mm	捆数 Bundle	重量 Weight t	化学成分Chemical Composition(熔炼分析Heat Analysis)(%) (1= $\times 10^{-1}$, 2= $\times 10^{-2}$, 3= $\times 10^{-3}$, 4= $\times 10^{-4}$, 5= $\times 10^{-5}$)																	
						C	Si	Mn	P	S	Nb	N	V	Ni	Cr	Mo	Cu	Ceq					
						2	2	2	3	3	3	3	3	2	2	2	2						
1	23230129	23BB00436002	Φ16*12000	1	2.774	20	29	139	33	22	2	4	4	2	5	1	2	44					
2																							
3																							
4																							
5																							
合计 Total				1	2.774	精度级别(PRECISION GRADE)																	
序号 No.	屈服强度 Yield Strength	抗拉强度 Tensile Strength	强屈比 Tensile/Yield Strength Ratio	最大力总伸长率 Total Elongation At Maximum Force		反弯 Rebend		肋纹测试 Surface Geometry Test		横截面积 Cross Sectional Area		米重 Mass Per Metre											
	Re/MPa	Rm/MPa	R ^m /R ^e	Agt/%		D=7a				mm ²		kg											
1	566/571/572	646/658/650	1.14/1.15/1.14	9.5/11.0/10.0		OK/OK/OK		OK/OK/OK		202.93/202.93/202.93		1.593/1.593/1.593											
2																							
3																							
4																							
5																							
注释(Notes):		Ceq=[C]+[Mn]/6+([Cr]+[Mo]+[V])/5+([Cu]+[Ni])/15																					
示意图 (Sketch Map):																							
备注 (Remarks):		1、兹证明我方所提供的材料符合CS2:2012标准要求, 并已按CS2:2012规定的频率进行试验。表面形状测量结果符合CS2:2012的要求。带肋钢筋的相对肋面积f _R 根据Simpson公式计算得出。2、ISO 9001证书号:02222Q3032-(2)R6L; ISO 9001证书有效期:2025-6-19。 1.We certify that the material supplied and complied with the requirement and has been tested at the frequency specified in CS2:2012. The results of the surface geometry measurement are in compliance with CS2:2012. The relative rib area, f _R , for ribbed steel reinforcing bars are calculated by using the Simpson's rule formula. 2.ISO 9001 No:02222Q3032-(2)R6L; Date of Expiry ISO 9001 2025-6-19.																					



产品质量证明书

MILL'S TEST CERTIFICATE

生产企业: 广西钢铁集团有限公司
PROD. MANUFACTURER: GUANGXI IRON AND STEEL GROUP COMPANY LIMITED
公司地址: 中国广西防城港市港口区北部湾大道196号
ADDRESS: 196 BEIBU GULF AVENUE, PORT DISTRICT, FANGCHENG GANG, GUANGXI, CHINA
销售电话 (TEL): 0772-2592278/3601/6272
售后服务 (TEL): 0772-2592132
售后服务 (FAX): 0772-2592784
产地: 中国广西防城港 ORIGIN: FANGCHENG GANG, GUANGXI, CHINA

收货单位(CONSIGNEE):		TO WHOM IT MAY CONCERN					证书编号(CERTIFICATE NO.):		BW2023029005761												
订货单位(CUSTOMER):		TO WHOM IT MAY CONCERN					合同编号(CONTRACT NO.):		FBH23-00658000300												
产品名称(PRODUCT):		钢筋混凝土用 热轧带肋钢筋 (Steel for the reinforcement of concrete Hot rolled ribbed bars)					装车单号(LOADING NO.):		BB422303296												
标准 (SPECIFICATION):		CS2:2012					车号 涂色(TRAIN NO. & COLOR):		桂PC1061												
牌号及交货状态(STEEL GRADE & DELIVERY CONDITION):		500B 淬火自回火(QST)					发货日期(DEPARTURE DATE):		20230217												
生产工艺路线(MANUFACTURING PROCESSES ROUTE):		转炉→炉后吹氩→(精炼)→连铸→棒材线																			
序号 No.	生产日期 Production Date	炉批号 Heat No.	规格 Size mm	捆数 Bundle	重量 Weight t	化学成分Chemical Composition(熔炼分析Heat Analysis)(%) (1=×10 ⁻¹ , 2=×10 ⁻² , 3=×10 ⁻³ , 4=×10 ⁻⁴ , 5=×10 ⁻⁵)															
						C	Si	Mn	P	S	Nb	N	V	Ni	Cr	Mo	Cu	Ceq			
						2	2	2	3	3	3	3	3	2	2	2	2				
1	20230203	23BB00580041	Φ25*12000	1	2.692	21	28	142	28	22	2	4	3	2	4	1	2	46			
2																					
3																					
4																					
5																					
合计 Total					1	2.692	精度级别(PRECISION GRADE)														
序号 No.	屈服强度 Yield Strength	抗拉强度 Tensile Strength	强屈比 Tensile/Yield Strength Ratio	最大力总伸长率 Total Elongation At Maximum Force		反弯 Rebend		肋纹测试 Surface Geometry Test		横截面积 Cross Sectional Area		米重 Mass Per Metre									
	Re/MPa	Rm/MPa	R ^m /R ^e e	Agt/%		D=7a				mm ²		kg									
1	566/562/591	664/657/686	1.17/1.17/1.16	10.0/9.5/9.0		OK/OK/OK		OK/OK/OK		474.27/474.27/474.27		3.723/3.723/3.723									
2																					
3																					
4																					
5																					
注释(Notes):		Ceq=[C]+[Mn]/6+([Cr]+[Mo]+[V])/5+([Cu]+[Ni])/15																			
示意图 (Sketch Map):																					
备注 (Remarks):		1、兹证明我方所提供的材料符合CS2:2012标准要求, 并已按CS2:2012规定的频率进行试验。表面形状测量结果符合CS2:2012的要求。带肋钢筋的相对肋面积fR根据Simpson公式计算得出。2、ISO 9001证书号:02222Q3032-(2)R6L; ISO 9001证书有效期:2025-6-19。 1.We certify that the material supplied and complied with the requirement and has been tested at the frequency specified in CS2:2012. The results of the surface geometry measurement are in compliance with CS2:2012. The relative rib area, fR, for ribbed steel reinforcing bars are calculated by using the Simpson's rule formula. 2.ISO 9001 No:02222Q3032-(2)R6L; Date of Expiry ISO 9001 2025-6-19.																			



产品质量证明书

MILL'S TEST CERTIFICATE

生产企业: 广西钢铁集团有限公司
PROD. MANUFACTURER: GUANGXI IRON AND STEEL GROUP COMPANY LIMITED
公司地址: 中国广西防城港市港口区北部湾大道196号
ADDRESS: 196 BEIBU GULF AVENUE, PORT DISTRICT, FANGCHENG GANG, GUANGXI, CHINA
销售电话 (TEL): 0772-2592278/36016272
售后服务电话 (TEL): 0772-2592132
售后服务传真 (FAX): 0772-2592784
产地: 中国广西防城港 ORIGIN: FANGCHENG GANG, GUANGXI, CHINA

收货单位(CONSIGNEE):		TO WHOM IT MAY CONCERN										证书编号(CERTIFICATE NO.):		BW2023029005761									
订货单位(CUSTOMER):		TO WHOM IT MAY CONCERN										合同编号(CONTRACT NO.):		FBH23-00658000300									
产品名称(PRODUCT):		钢筋混凝土用 热轧带肋钢筋 (Steel for the reinforcement of concrete Hot rolled ribbed bars)										装车单号(LOADING NO.):		BB422303296									
标准 (SPECIFICATION):		CS2:2012										车号 涂色(TRAIN NO. & COLOR):		桂PC1061									
牌号及交货状态(STEEL GRADE & DELIVERY CONDITION):				500B 淬火自回火(QST)						发货日期(DEPARTURE DATE):				20230219									
生产工艺路线(MANUFACTURING PROCESSES ROUTE):				转炉→炉后吹氩→(精炼)→连铸→棒材线																			
序号 No.	生产日期 Production Date	炉批号 Heat No.	规格 Size mm	捆数 Bundle	重量 Weight t	化学成分Chemical Composition(熔炼分析Heat Analysis)(%) (1= $\times 10^{-1}$, 2= $\times 10^{-2}$, 3= $\times 10^{-3}$, 4= $\times 10^{-4}$, 5= $\times 10^{-5}$)																	
						C	Si	Mn	P	S	Nb	N	V	Ni	Cr	Mo	Cu	Ceq					
						2	2	2	3	3	3	3	3	2	2	2	2						
1	23230217	23BD00076002	Φ32*12000	1	2.619	20	30	138	28	23	17	7	4	1	5	0	3	44					
2																							
3																							
4																							
5																							
合计 Total				1	2.619	精度级别(PRECISION GRADE)																	
序号 No.	屈服强度 Yield Strength	抗拉强度 Tensile Strength	强屈比 Tensile/Yield Strength Ratio	最大力总伸长率 Total Elongation At Maximum Force		反弯 Rebend		肋纹测试 Surface Geometry Test		横截面积 Cross Sectional Area		米重 Mass Per Metre											
	Re/MPa	Rm/MPa	R ^m /R ^e	Agt/%		D=7a				mm ²		kg											
1	595/596/598	675/675/677	1.14/1.13/1.13	13.5/10.5/10.0		OK/OK/OK		OK/OK/OK		804.08/804.08/804.08		6.312/6.312/6.312											
2																							
3																							
4																							
5																							
注释(Notes):		Ceq=[C]+[Mn]/6+([Cr]+[Mo]+[V])/5+([Cu]+[Ni])/15																					
示意图 (Sketch Map):																							
备注 (Remarks):		1、兹证明我方所提供的材料符合CS2:2012标准要求, 并已按CS2:2012规定的频率进行试验。表面形状测量结果符合CS2:2012的要求。带肋钢筋的相对肋面积fR根据Simpson公式计算得出。2、ISO 9001证书号:02222Q3032-(2)R6L; ISO 9001证书有效期:2025-6-19。 1.We certify that the material supplied and complied with the requirement and has been tested at the frequency specified in CS2:2012. The results of the surface geometry measurement are in compliance with CS2:2012. The relative rib area, fR, for ribbed steel reinforcing bars are calculated by using the Simpson's rule formula. 2.ISO 9001 No:02222Q3032-(2)R6L; Date of Expiry ISO 9001 2025-6-19.																					



产品质量证明书

MILL'S TEST CERTIFICATE

02/03/2021

生产企业: 广西钢铁集团有限公司
PROD. MANUFACTURER: GUANGXI IRON AND STEEL GROUP COMPANY LIMITED
公司地址: 中国广西防城港市港口区北部湾大道196号
ADDRESS: 196 BEIBU GULF AVENUE, PORT DISTRICT, FANGCHENGANG, GUANGXI, CHINA
销售电话 (TEL): 0772-2592278/3601/6272
售后服务 (TEL): 0772-2592132
售后传真 (FAX): 0772-2592784
产地: 中国广西防城港 ORIGIN: FANGCHENGANG, GUANGXI, CHINA

收货单位(CONSIGNEE):		TO WHOM IT MAY CONCERN										证书编号(CERTIFICATE NO.):		BW2023029005761									
订货单位(CUSTOMER):		TO WHOM IT MAY CONCERN										合同编号(CONTRACT NO.):		FBH23-00658000300									
产品名称(PRODUCT):		钢筋混凝土用 热轧带肋钢筋 (Steel for the reinforcement of concrete Hot rolled ribbed bars)										装车单号(LOADING NO.):		BB422303296									
标准 (SPECIFICATION):		CS2:2012										车号 涂色(TRAIN NO. & COLOR):		桂PC1061									
牌号及交货状态(STEEL GRADE & DELIVERY CONDITION):				500B 淬火自回火(QST)						发货日期(DEPARTURE DATE):				20230219									
生产工艺路线(MANUFACTURING PROCESSES ROUTE):				转炉→炉后吹氩→(精炼)→连铸→棒材线																			
序号 No.	生产日期 Production Date	炉批号 Heat No.	规格 Size mm	捆数 Bundle	重量 Weight t	化学成分Chemical Composition(熔炼分析Heat Analysis)(%) (1= $\times 10^{-1}$, 2= $\times 10^{-2}$, 3= $\times 10^{-3}$, 4= $\times 10^{-4}$, 5= $\times 10^{-5}$)																	
						C	Si	Mn	P	S	Nb	N	V	Ni	Cr	Mo	Cu	Ceq					
						2	2	2	3	3	3	3	3	2	2	2	2						
1	23230217	23BA00706006	Φ40*12000	1	2.917	19	29	141	36	25	16	5	4	1	4	1	2	44					
2																							
3																							
4																							
5																							
合计 Total				1	2.917	精度级别(PRECISION GRADE)																	
序号 No.	屈服强度 Yield Strength	抗拉强度 Tensile Strength	强屈比 Tensile/Yield Strength Ratio	最大力总伸长率 Total Elongation At Maximum Force		反弯 Rebend		肋纹测试 Surface Geometry Test		横截面积 Cross Sectional Area		米重 Mass Per Metre											
	Re/MPa	Rm/MPa	R ^m /R ^e	Agt/%		D=7a				mm ²		kg											
1	563/562/563	672/671/672	1.19/1.19/1.19	10.0/11.5/13.5		OK/OK/OK		OK/OK/OK		1219.24/1219.24/1219.24		9.571/9.571/9.571											
2																							
3																							
4																							
5																							
注释(Notes):		Ceq=[C]+[Mn]/6+([Cr]+[Mo]+[V])/5+([Cu]+[Ni])/15																					
示意图 (Sketch Map):																							
备注 (Remarks):		1、兹证明我方所提供的材料符合CS2:2012标准要求, 并已按CS2:2012规定的频率进行试验。表面形状测量结果符合CS2:2012的要求。带肋钢筋的相对肋面积fR根据Simpson公式计算得出。2、ISO 9001证书号:02222Q3032-(2)R6L; ISO 9001证书有效期:2025-6-19。 1.We certify that the material supplied and complied with the requirement and has been tested at the frequency specified in CS2:2012. The results of the surface geometry measurement are in compliance with CS2:2012. The relative rib area, fR, for ribbed steel reinforcing bars are calculated by using the Simpson's rule formula. 2.ISO 9001 No:02222Q3032-(2)R6L; Date of Expiry ISO 9001 2025-6-19.																					



QUALITY MANAGEMENT SYSTEM CERTIFICATE

Certificate No. 00121Q312146R1L/4500

We hereby certify that

Alliance Steel (M) Sdn. Bhd.

Unified Social Credit Code: 000000000

Registered Address: 10th Floor, Menara Hap Seng, No.1&3 Jalan P.Ramlee, 50250 Kuala Lumpur Malaysia

Production Address: KAWASAN INDUSTRI MALAYSIA-CHINA KUANTAN (MCKIP), JALAN GEBENG BY
PASS, 26080 KUANTAN PAHANG

by reason of its

Quality Management System

has been awarded this certificate for compliance with the standard

GB/T 19001-2016 / ISO 9001:2015

The Quality Management System Applies in the following area:

Production of Steel Product (Includes High Speed Wire Rod, High Strength Bar, Square Billet, Small
and Medium Shaped Steel)

Certified since: December 24, 2018 Valid from: December 21, 2021 Valid until: December 23, 2024

After a surveillance cycle, the certificate is valid only when used together with an Acceptance Notice of Surveillance Audit issued by CQC.
Please access www.cqc.com.cn for checking validity of the certificate.

This certificate and its relevant information can query in the website of Certification and Accreditation Administration of the People's
Republic of China (www.cnca.gov.cn).



中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C001-M

谢肇煦
Signed by: Xie Zhaoxu



CHINA QUALITY CERTIFICATION CENTRE

Section 9, No.188, Nansihuan(the South Fourth Ring Road) Xilu(West Road), Beijing 100070,China
<http://www.cqc.com.cn>

A 0036173

2021年版



ALLIANCE STEEL (M) SDN. BHD. (1088350-M)
Kawasan Industri Malaysia-China Kuantan (MCKIP),
Jalan Gebeng By Pass, 26080 Kuantan, Pahang, Malaysia.
Tel.: +609-5855999

MILL TEST CERTIFICATE

Certificate No.: ASSB-QC-MC-APR LWXS2022033-4-001

4.1 MAL20



Version No.: 2

Customer : WELMETAL RESOURCES GROUP LIMITED							Commodity : HIGH YIELD STEEL DEFORMED BARS										Destination HONG KONG									
CONTRACT NO. RDB-P2110022							ISO CERTIFICATE NUMBER : 00121Q312146R1L/4500										Car Plate N/A									
							Standard : CS2:2012										D. O. No. N/A									
							Length : 12meter										Issuing Date : 15/4/2022									
							Delivery State : Bar in Straight Length																			
Size (mm)	Heat No.	Steel Grade	Cross-sectional area (mm²)	MASS (kg/m)	No. of Bundles	Weight (Mt)	Chemical Composition (%)														Mechanical Properties					
							C	Mn	Si	P	S	Ni	Cr	Cu	Mo	V	Nb	Al	N	Ceq	Yield Strength	Tensile Strength	Stress Ratio	Elong (%)	Rebend Test	
																					Re / MPa	Rm / Mpa	Rm / Re	Agt	90°/20°	
16	21-4-16181	500B	193.764	1.52312	1	2.02	0.21	1.04	0.46	0.042	0.015	0.041	0.067	0.064	0.0077	0.0025	0.0024	0.0032	0.0100	0.41	584	681	1.17	11.2	OK	
																					587	682	1.16	12.6	OK	
																					576	674	1.17	12.0	OK	
16	21-4-16215	500B	193.563	1.52154	28	56.56	0.21	1.04	0.46	0.022	0.020	0.037	0.051	0.093	0.0073	0.0026	0.0027	0.0040	0.0100	0.40	586	686	1.17	11.0	OK	
																					579	677	1.17	12.3	OK	
																					596	690	1.16	11.2	OK	
16	22-4-7057	500B	194.568	1.52944	4	8.08	0.22	1.06	0.46	0.029	0.020	0.028	0.047	0.071	0.0053	0.0029	0.0021	0.0030	0.0090	0.41	590	696	1.18	11.9	OK	
																					587	688	1.17	11.7	OK	
																					586	693	1.18	10.6	OK	
16	22-4-7058	500B	194.367	1.52786	37	74.74	0.21	1.04	0.48	0.032	0.020	0.029	0.048	0.060	0.0054	0.0032	0.0022	0.0042	0.0098	0.40	552	666	1.21	12.4	OK	
																					551	662	1.20	11.9	OK	
																					571	677	1.19	11.6	OK	
16	22-4-7059	500B	194.166	1.52628	34	68.68	0.21	1.05	0.47	0.028	0.020	0.032	0.056	0.074	0.0057	0.0029	0.0024	0.0039	0.0097	0.40	565	677	1.20	10.5	OK	
																					576	685	1.19	11.7	OK	
																					560	674	1.20	11.6	OK	
16	22-4-7060	500B	194.367	1.52786	47	95.26	0.20	1.03	0.46	0.027	0.027	0.035	0.067	0.095	0.0052	0.0028	0.0015	0.0038	0.0100	0.40	567	674	1.19	12.4	OK	
																					562	677	1.20	11.5	OK	
																					579	683	1.18	10.9	OK	
																					564	679	1.20	11.7	OK	
16	22-4-7061	500B	193.965	1.5247	49	99.47	0.22	1.03	0.47	0.018	0.019	0.031	0.047	0.065	0.0051	0.0024	0.0022	0.0042	0.0093	0.41	579	686	1.18	11.5	OK	
																					571	680	1.19	10.9	OK	
																					567	678	1.20	14.2	OK	
																					574	682	1.19	11.5	OK	
16	22-4-7062	500B	194.166	1.52628	16	32.32	0.20	1.05	0.46	0.030	0.020	0.046	0.093	0.062	0.0110	0.0028	0.0024	0.0036	0.0091	0.40	574	686	1.20	12.4	OK	
																					574	685	1.19	10.9	OK	
																					579	685	1.18	11.5	OK	
16	22-4-7067	500B	194.97	1.5326	1	2.02	0.22	1.02	0.49	0.018	0.013	0.040	0.052	0.110	0.0062	0.0023	0.0019	0.0027	0.0093	0.41	577	680	1.18	12.4	OK	
																					568	674	1.19	11.9	OK	
																					586	688	1.17	11.2	OK	
16	22-4-7068	500B	194.166	1.52628	7	14.14	0.19	1.02	0.48	0.025	0.013	0.040	0.083	0.113	0.0070	0.0024	0.0025	0.0030	0.0092	0.39	551	684	1.24	10.5	OK	
																					569	689	1.21	12.0	OK	
																					569	682	1.20	11.7	OK	
16	22-4-7070	500B	193.563	1.52154	37	74.74	0.22	1.08	0.51	0.029	0.010	0.037	0.087	0.100	0.0063	0.0026	0.0029	0.0033	0.0110	0.43	590	687	1.16	12.0	OK	
																					590	686	1.16	10.8	OK	
																					582	680	1.17	11.6	OK	
TOTAL:					261	528.03																				

- We hereby certify that the material described herein has been made and tested in accordance with above specifications.
- This certificate is issued in accordance to BS EN 10204 Type 3.1.
- This certificate is invalid if without signature and stamped by issuer from quality control department.
- This certificate is invalid if handwritten or altered.
- If found quality discrepancy during acceptance, please send us the certificate number and details for verification purpose.
- $Ceq = C + Mn / 6 + 1/5 (Cr + Mo + V) + 1/15 (Ni + Cu)$
- The actual weight is subject to weight-bridge.
- This product is free from harmful radiation contamination.
- The results of surface geometry measurement are in compliance with CS2:2012.

Manufacturing Process: QST

Deformed Bar Mark:

Remark: ## = Size (mm)

Issued by : JING WEI

Approved by : Deng Chao Qiong

Authorized Signature
Quality Control Department

AS BAR SIZE 1 X 9 2 5 3

MAL 20



ALLIANCE STEEL (M) SDN. BHD. (1088350-M)
Kawasan Industri Malaysia-China Kuantan (MCKIP),
Jalan Gebeng By Pass, 26080 Kuantan, Pahang, Malaysia.
Tel.: +609-5855999

MILL TEST CERTIFICATE

Certificate No.: ASSB-QC-MC-APR LWXS2022033-4-005



Version No. : 2

180506

Customer : WELMETAL RESOURCES GROUP LIMITED							Commodity : HIGH YIELD STEEL DEFORMED BARS										Destination HONG KONG									
CONTRACT NO. RDB-P2110022							ISO CERTIFICATE NUMBER : 00121Q312146R1L/4500										Car Plate N/A									
							Standard : CS2:2012										D. O. No. N/A									
							Length : 12meter										Issuing Date : 15/4/2022									
							Delivery State : Bar in Straight Length																			
Size (mm)	Heat No.	Steel Grade	Cross-sectional area (mm²)	MASS (kg/m)	No. of Bundles	Weight (Mt)	Chemical Composition (%)															Mechanical Properties				
							C	Mn	Si	P	S	Ni	Cr	Cu	Mo	V	Nb	Al	N	Ceq	Yield Strength Re / MPa	Tensile Strength Rm / MPa	Stress Ratio Rm / Re	Elong (%) Agt	Rebend Test 90°/20°	
25	21-4-15642	500B	473.324	3.7114	36	72.72	0.22	1.04	0.46	0.025	0.026	0.035	0.055	0.099	0.0071	0.0022	0.0021	0.0027	0.0084	0.43	528	618	1.17	13.5	OK	
																					555	640	1.15	10.6	OK	
																					551	630	1.14	11.3	OK	
25	21-4-15884	500B	473.324	3.7114	21	42.42	0.21	1.06	0.49	0.028	0.027	0.034	0.053	0.084	0.0091	0.0025	0.0028	0.0032	0.0097	0.41	553	656	1.19	11.0	OK	
																					562	659	1.17	11.3	OK	
																					567	658	1.16	10.9	OK	
25	21-4-15889	500B	474.306	3.7191	48	96.96	0.19	1.03	0.53	0.018	0.018	0.030	0.044	0.104	0.0069	0.0024	0.0025	0.0026	0.0084	0.38	534	636	1.19	13.3	OK	
																					545	650	1.19	12.9	OK	
																					537	642	1.20	11.4	OK	
																					544	648	1.19	12.3	OK	
25	21-4-15905	500B	473.815	3.71525	3	6.06	0.21	1.08	0.49	0.021	0.026	0.034	0.076	0.081	0.0140	0.0027	0.0029	0.0036	0.0065	0.42	561	653	1.16	12.6	OK	
																					569	659	1.16	12.8	OK	
																					565	653	1.16	12.0	OK	
25	21-4-15906	500B	473.324	3.7114	17	34.34	0.20	1.05	0.46	0.019	0.036	0.023	0.031	0.057	0.0059	0.0022	0.0021	0.0031	0.0098	0.39	555	641	1.15	11.6	OK	
																					577	657	1.14	11.2	OK	
																					574	654	1.14	11.5	OK	
25	21-4-15910	500B	473.324	3.7114	17	34.34	0.21	1.03	0.49	0.021	0.028	0.083	0.030	0.095	0.0120	0.0020	0.0012	0.0018	0.0097	0.40	548	641	1.17	12.3	OK	
																					541	636	1.18	13.0	OK	
																					543	641	1.18	12.1	OK	
25	21-4-15911	500B	472.833	3.70755	13	26.26	0.21	1.06	0.51	0.027	0.026	0.032	0.026	0.071	0.0076	0.0024	0.0020	0.0025	0.0094	0.40	534	634	1.19	11.5	OK	
																					544	633	1.16	12.3	OK	
																					554	642	1.16	13.3	OK	
25	22-4-6608	500B	472.342	3.7037	46	92.92	0.19	1.04	0.48	0.028	0.031	0.025	0.030	0.064	0.0061	0.0025	0.0026	0.0035	0.0083	0.38	584	677	1.16	10.7	OK	
																					538	632	1.17	13.4	OK	
																					526	622	1.18	13.1	OK	
																					525	621	1.18	12.9	OK	
25	22-4-6636	500B	472.833	3.70755	42	84.84	0.19	1.04	0.46	0.018	0.019	0.027	0.044	0.062	0.0089	0.0021	0.0016	0.0042	0.0090	0.38	544	627	1.15	12.7	OK	
																					548	629	1.15	15.6	OK	
																					550	634	1.15	14.1	OK	
25	22-4-6764	500B	472.833	3.70755	22	44.44	0.21	1.06	0.44	0.035	0.024	0.034	0.040	0.084	0.0059	0.0027	0.0018	0.0027	0.0086	0.40	571	662	1.16	10.4	OK	
																					554	649	1.17	13.0	OK	
																					558	655	1.17	11.4	OK	
25	22-4-6773	500B	471.851	3.69985	22	44.44	0.20	1.06	0.48	0.030	0.036	0.032	0.045	0.095	0.0084	0.0024	0.0032	0.0029	0.0098	0.40	561	630	1.12	10.3	OK	
																					557	632	1.13	10.8	OK	
																					559	633	1.13	10.5	OK	
TOTAL:					287	579.74																				

- We hereby certify that the material described herein has been made and tested in accordance with above specifications.
 - This certificate is issued in accordance to BS EN 10204 Type 3.1.
 - This certificate is invalid if without signature and stamped by issuer from quality control department.
 - This certificate is invalid if handwritten or altered.
 - If found quality discrepancy during acceptance, please send us the certificate number and details for verification purpose.
 - $Ceq = C + Mn / 6 + 1/5 (Cr + Mo + V) + 1/15 (Ni + Cu)$
 - The actual weight is subject to weight-bridge.
 - This product is free from harmful radiation contamination.
 - The results of surface geometry measurement are in compliance with CS2:2012.
- Manufacturing Process: QST
- Deformed Bar Mark:
- Remark: ## = Size (mm)

Issued by : JING WEI

Approved by : Deng Chao Qiong

Authorized Signature
Quality Control Department

AS BAR SIZE 1 X 9 2 5 3



ALLIANCE STEEL (M) SDN. BHD. (1088350-M)
Kawasan Industri Malaysia-China Kuantan (MCKIP),
Jalan Gebeng By Pass, 26080 Kuantan, Pahang, Malaysia.
Tel.: +609-5855999

MILL TEST CERTIFICATE

Certificate No.: ASSB-QC-MC-APR LWXS2022033-4-007

Version No. : 2



Customer : WELMETAL RESOURCES GROUP LIMITED							Commodity : HIGH YIELD STEEL DEFORMED BARS										Destination : HONG KONG									
							ISO CERTIFICATE NUMBER : 00121Q312146R1L/4500										Car Plate : N/A									
CONTRACT NO. RDB-P2110022							Standard : CS2:2012										D. O. No. : N/A									
							Length : 12meter										Issuing Date : 15/4/2022									
							Delivery State : Bar in Straight Length																			
Size (mm)	Heat No.	Steel Grade	Cross-sectional area (mm²)	MASS (kg/m)	No. of Bundles	Weight (Mt)	Chemical Composition (%)															Mechanical Properties				
							C	Mn	Si	P	S	Ni	Cr	Cu	Mo	V	Nb	Al	N	Ceq	Yield Strength Re / MPa	Tensile Strength Rm / MPa	Stress Ratio Rm / Re	Elong (%) Agt	Rebend Test 90°/20°	
40	21-4-16060	500B	1209.234	9.48532	1	2.06	0.22	1.25	0.46	0.036	0.034	0.033	0.049	0.088	0.0075	0.0027	0.0021	0.0027	0.0090	0.45	545	652	1.20	12.6	OK	
																					549	647	1.18	12.4	OK	
																					553	652	1.18	11.9	OK	
40	21-4-16061	500B	1215.519	9.53462	26	53.82	0.20	1.27	0.46	0.032	0.026	0.039	0.039	0.080	0.0110	0.0029	0.0021	0.0030	0.0083	0.43	555	651	1.17	12.4	OK	
																					551	649	1.18	11.9	OK	
																					558	653	1.17	12.2	OK	
40	21-4-16091	500B	1207.977	9.47546	54	111.78	0.21	1.25	0.48	0.014	0.017	0.038	0.046	0.105	0.0061	0.0026	0.0032	0.0048	0.0010	0.44	569	671	1.18	12.0	OK	
																					562	663	1.18	10.8	OK	
																					572	673	1.18	11.1	OK	
																					567	667	1.18	11.5	OK	
40	21-4-16092	500B	1210.491	9.49518	53	109.71	0.20	1.23	0.49	0.022	0.019	0.042	0.049	0.078	0.0099	0.0025	0.0030	0.0035	0.0089	0.43	564	658	1.17	11.0	OK	
																					570	667	1.17	12.4	OK	
																					562	657	1.17	11.6	OK	
																					569	666	1.17	11.5	OK	
40	21-4-16093	500B	1207.977	9.47546	9	18.54	0.22	1.27	0.46	0.025	0.014	0.039	0.061	0.091	0.0080	0.0031	0.0035	0.0032	0.0085	0.45	577	673	1.17	12.4	OK	
																					575	676	1.18	13.8	OK	
																					578	673	1.16	12.4	OK	
40	21-4-16094	500B	1214.262	9.52476	2	4.12	0.20	1.24	0.46	0.021	0.024	0.050	0.042	0.102	0.0060	0.0031	0.0033	0.0033	0.0086	0.43	574	678	1.18	12.3	OK	
																					562	684	1.22	12.6	OK	
																					584	674	1.15	11.9	OK	
40	21-4-16112	500B	1211.748	9.50504	45	93.15	0.22	1.33	0.49	0.011	0.010	0.033	0.030	0.090	0.0079	0.0028	0.0024	0.0037	0.0093	0.46	564	661	1.17	12.5	OK	
																					558	660	1.18	13.4	OK	
																					559	663	1.19	11.9	OK	
																					560	662	1.18	11.4	OK	
40	21-4-16113	500B	1214.262	9.52476	17	35.02	0.21	1.23	0.53	0.0072	0.009	0.035	0.055	0.075	0.0095	0.0023	0.0018	0.0031	0.0100	0.44	579	674	1.16	11.5	OK	
																					581	677	1.17	14.0	OK	
																					580	678	1.17	11.6	OK	
40	21-4-16114	500B	1213.005	9.5149	45	93.15	0.20	1.29	0.46	0.024	0.008	0.034	0.044	0.073	0.0085	0.0034	0.0020	0.0034	0.0090	0.43	575	676	1.18	12.1	OK	
																					560	660	1.18	12.8	OK	
																					572	676	1.18	11.2	OK	
																					568	666	1.17	11.6	OK	
40	21-4-16123	500B	1210.491	9.49518	1	2.06	0.20	1.29	0.55	0.028	0.010	0.037	0.084	0.109	0.0086	0.0028	0.0029	0.0037	0.0091	0.44	583	679	1.16	12.8	OK	
																					595	682	1.15	11.1	OK	
																					590	680	1.15	12.5	OK	
TOTAL:																										
																						253				
																							523.41			

- We hereby certify that the material described herein has been made and tested in accordance with above specifications.
- This certificate is issued in accordance to BS EN 10204 Type 3.1.
- This certificate is invalid if without signature and stamped by issuer from quality control department.
- This certificate is invalid if handwritten or altered.
- If found quality discrepancy during acceptance, please send us the certificate number and details for verification purpose.
- $Ceq = C + Mn / 6 + 1/5 (Cr + Mo + V) + 1/15 (Ni + Cu)$
- The actual weight is subject to weight-bridge.
- This product is free from harmful radiation contamination.
- The results of surface geometry measurement are in compliance with CS2:2012.

Manufacturing Process: QST

Deformed Bar Mark:

Remark: ## = Size (mm)

Issued by : JING WEI

Approved by : Deng Chao Qiong

Authorized Signature
Quality Control Department

AS BAR SIZE 1 X 9 2 5 3



副本

质量管理体系认证证书

证书编号: 00121Q312146R1L/4500

兹证明

联合钢铁(大马)集团公司

统一社会信用代码: 000000000

注册地址: 马来西亚吉隆坡比南利路合成大楼 183 号 10 楼

生产地址: 马来西亚彭亨州关丹市马中关丹产业园

建立的质量管理体系符合标准:

GB/T 19001-2016 / ISO 9001:2015

通过认证范围如下:

钢材(高速线材、高力度棒材、热轧、中小型材)的生产

首次发证日期: 2018年12月24日 本次发证日期: 2021年12月21日 有效期至: 2024年12月23日

在一个监督周期后, 本证书须与CQC签发的监督审核合格通知书合并使用方可有效, 查询证书有效状态请登录 www.cqc.com.cn,
 本证书信息可在国家认证认可监督管理委员会官方网站 (www.cnca.gov.cn) 上查询



中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS 0001-M

谢肇煦
Signed by: Xie Zhaoxu



中国质量认证中心

中国·北京·南四环西路188号9区 100070
<http://www.cqc.com.cn>

A 0036172

2021年版



副本

QUALITY MANAGEMENT SYSTEM CERTIFICATE

Certificate No. 00121Q312146R1L/4500

We hereby certify that

Alliance Steel (M) Sdn. Bhd.

Unified Social Credit Code: 000000000

Registered Address: 10th Floor, Menara Hap Seng, No.1&3 Jalan P.Ramlee, 50250 Kuala Lumpur Malaysia

Production Address: KAWASAN INDUSTRI MALAYSIA-CHINA KUANTAN (MCKIP), JALAN GEBENG BY

PASS, 26080 KUANTAN PAHANG

by reason of its

Quality Management System

has been awarded this certificate for compliance with the standard

GB/T 19001-2016 / ISO 9001:2015

The Quality Management System Applies in the following area:

Production of Steel Product (Includes High Speed Wire Rod, High Strength Bar, Square Billet, Small and Medium Shaped Steel)

Certified since: December 24, 2018 Valid from: December 21, 2021 Valid until: December 23, 2024

After a surveillance cycle, the certificate is valid only when used together with an Acceptance Notice of Surveillance Audit issued by CQC.
Please access www.cqc.com.cn for checking validity of the certificate.

This certificate and its relevant information can query in the website of Certification and Accreditation Administration of the People's Republic of China (www.cnca.gov.cn).



中国认可
国际互认
管理体系
MANAGEMENT SYSTEM
CNAS C001-M

谢肇煦
Signed by: Xie ZhaoXu



CHINA QUALITY CERTIFICATION CENTRE

Section 9, No.188, Nansihuan(the South Fourth Ring Road) Xilu(West Road), Beijing 100070,China

<http://www.cqc.com.cn>

A 0036172

2021年版



ALLIANCE STEEL (M) SDN BHD. (1088250-M)
Kawasan Industri Malaysia-China Kuantan (MCKIP),
Jalan Gebeng By Pass, 26080 Kuantan, Pahang, Malaysia.
Tel: +609-5855999

MILL TEST CERTIFICATE

Certificate No.: ASSB-QC-MC-2022-081

Version No.: 2



Customer :	Commodity : HIGH YIELD STEEL DEFORMED BARS	Destination : HONG KONG
CONTRACT NO. :	ISO CERTIFICATE NUMBER : 00121Q312146811/4500	Car Plate : N/A
	Standard : CS2:2012	D.O. No. : N/A
	Length : 12meter	Issuing Date : 6月10日
	Delivery State : Bar in Straight Length	

Dia (mm)	Steel No.	Steel Grade	Cross-sectional area (mm²)	MASS (kg/m)	No. of Bundles	Weight (kg)	Chemical Composition (%)													Mechanical Properties							
							C	Mn	Si	P	S	Al	Cr	Cu	Mo	V	Nb	As	N	Ca	Y	Ga	Yield Strength	Tensile Strength	Stress Ratio	Elong (%)	Ratio (Rm/Re)
																							Re / MPa	Rm / MPa	Rm / Re	Agg	Ed/200
10	21-4-15603	500E	75.7	0.596			0.21	0.82	0.40	0.026	0.015	0.029	0.059	0.079	0.0069	0.0019	0.0018	0.0022	0.0091	0.37	594	672	1.13	11.7	OK		
																					597	675	1.13	11.0	OK		
																					595	667	1.12	11.2	OK		
12	21-4-16893	500E	106.7	0.863			0.20	0.87	0.41	0.014	0.017	0.015	0.017	0.035	0.0049	0.0030	0.0045	0.0047	0.0088	0.35	578	661	1.14	11.0	OK		
																					575	652	1.13	10.6	OK		
																					583	672	1.15	12.5	OK		
16	22-4-7117	500E	194.3	1.527			0.19	1.09	0.49	0.011	0.015	0.034	0.044	0.069	0.0084	0.0022	0.0021	0.0026	0.0080	0.39	581	662	1.14	10.9	OK		
																					592	669	1.13	10.4	OK		
																					577	658	1.14	11.0	OK		
20	21-4-15713	500E	304.1	2.375			0.22	1.10	0.50	0.024	0.032	0.035	0.026	0.059	0.0065	0.0026	0.0022	0.0032	0.0081	0.42	585	675	1.15	10.7	OK		
																					578	670	1.16	10.2	OK		
																					588	677	1.13	11.5	OK		
25	22-4-6533	500E	472.2	3.705			0.19	1.03	0.47	0.020	0.030	0.027	0.029	0.116	0.0075	0.0023	0.0027	0.0040	0.0088	0.38	558	649	1.16	13.5	OK		
																					562	652	1.16	12.2	OK		
																					569	652	1.16	13.3	OK		
32	21-4-16058	500E	777.0	6.098			0.22	1.24	0.46	0.034	0.034	0.039	0.050	0.076	0.0092	0.0024	0.0017	0.0025	0.0097	0.45	546	630	1.15	12.2	OK		
																					551	639	1.16	12.8	OK		
																					558	640	1.13	13.1	OK		
40	21-4-16027	500E	1207.8	9.485			0.21	1.15	0.55	0.018	0.019	0.031	0.039	0.089	0.0089	0.0024	0.0021	0.0035	0.0094	0.42	566	663	1.17	11.4	OK		
																					554	665	1.20	11.8	OK		
																					563	672	1.19	11.3	OK		
TOTAL:																											

1. We certify that the material supplied and complied with the requirement and has been tested at the frequency specified in BS4449:2005 & CS2:2012

2. The results of the surface geometry measurement are in compliance with CS2:2012

3. The relative rib area, R_L , for ribbed steel reinforcing bars are calculated by using the Simpson's rule formula.

4. This certificate is issued in accordance to BS EN 10204 Type 3.1

5. This certificate is invalid if without signature and stamped by issuer from quality control department.

6. This certificate is invalid if handwritten or altered.

7. If found quality discrepancy during acceptance, please send us the certificate number and details for verification purpose.

8. $Ceq = C + Mn / 6 + 1/5 (Cr+Mo+V) + 1/15 (Ni+Cu)$

9. The actual weight is subject to weight-bridge.

10. This product is free from harmful radiation contamination.

Manufacturing Process: QST

Deformed Bar Mark:

Remark: #8 = Size (mm)

Issued by : JING WEI

Approved by : Deng Chao Qiang

Authorized Signature
Quality Control Department



CERTIFICATE OF APPROVAL



Quality Management System Certification

This is to certify that

Qatar Steel Company (QPSC)

at its establishment at

Post Box 50090 , Mesaieed , Qatar

has been approved by the Authority to the following management system standard using the processes and procedures registered with the Authority:

BS EN ISO 9001: 2015

Scope of certification:

Production of direct reduced iron (DRI) and hot briquetted iron (HBI).

Production of continuously cast steel billets.

Production of hot rolled steel bar for the reinforcement of concrete.

This certificate remains the property of the Authority and is issued subject to the Regulations of the Authority. This certificate is uncontrolled when printed. To check the validity of this certificate please visit www.ukcares.com or contact us on +44 1732 450000.

CERTIFICATE NUMBER

1130

FIRST APPROVAL

April 2006

ISSUE DATE

15 September 2020

EXPIRY DATE

15 September 2023

SIGNED FOR UK CERTIFICATION AUTHORITY FOR REINFORCING STEELS

Lee Brankley,
Chief Executive Officer

The use of the Accreditation Mark indicates accreditation in respect of those activities covered by the accreditation certificate number 002.

UK Certification Authority for Reinforcing Steels, Pembroke House, 21 Pembroke Road, Sevenoaks, Kent, TN13 1XR, UK.

A Company Limited by Guarantee. Registered in England No. 1762448.

Cert. Ref: A/C112010 43401 171



002

MILL'S TEST CERTIFICATE

5.1 QTR3



ISO Certificate Number 1130

Customer: WELMETAL RESOURCES GROUP LIMITED
 Manufacturer/Supplier: QATAR STEEL COMPANY (Q.P.S.C)
 Commodity: HIGH YIELD STEEL DEFORMED BARS
 Specification: BS4449:2005 Grade:B500B and CS2:2012 Grade:500B
 Destination: HONG KONG
 Length: 12 MTR



Certificate No: QS-19-2503134
 Date: 24 MAR 2019
 Delivery No: 2503134

S I Z E (mm)	Heat No	Chemical Composition (%)															Tensile Test								Test Methods Used
																	CS AREA	Mass	YS	TS	TS/YS	A5%	Agt%	BD/RBD	
		Bdls	Bdls Wgt MT	C	Si	Mn	P	S	V	Nb	Cu	Ni	Cr	Mo	N	CE	mm2	kg/m	Mpa	Mpa					
10	2019C01433	3	5.994	0.20	0.15	0.72	0.008	0.018	0.000	0.000	0.033	0.023	0.014	0.007	0.006	0.33	78.50	0.600	588	649	1.10	20	10.0	PASSED	Chemical Analysis : - ASTM E415 Tensile Test -BS 4449:2005 -BS EN ISO 15630-1 -BS EN ISO 6892-1 Bend -BS 4449:2005 -BS EN ISO 15630-1 Rebend -BS 4449:2005 -BS EN ISO 15630-1
																	78.50	0.597	590	643	1.09	20	10.0	PASSED	
																	78.50	0.597	591	647	1.09	20	10.0	PASSED	
10	2019C01424	31	61.938	0.19	0.14	0.72	0.009	0.016	0.000	0.000	0.038	0.020	0.015	0.005	0.006	0.32	78.50	0.600	589	626	1.12	20	10.0	PASSED	
																	78.50	0.597	555	617	1.11	21	10.0	PASSED	
																	78.50	0.597	561	620	1.10	21	10.0	PASSED	
10	2019C01419	28	55.944	0.19	0.14	0.72	0.009	0.016	0.000	0.001	0.041	0.030	0.017	0.007	0.004	0.32	78.50	0.597	568	623	1.10	21	10.0	PASSED	
																	78.50	0.607	584	643	1.10	20	10.0	PASSED	
																	78.50	0.599	574	630	1.10	21	10.0	PASSED	

We hereby certify that the material described herein has been made to the applicable specification by the process mentioned below and tested in accordance with the requirements of the contract specification.

DR EF/CC -RM (QST)

$$CE = C + Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu) / 15$$

QATAR STEEL REBARS ARE FREE FROM HARMFUL RADIOACTIVE ELEMENTS



BAR PATTERN



BAR PATTERN CODE = QTR3

We certify that the material supplied complies with the requirements of and have been tested at the frequency specified in BS4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS4449:2005 and CS2:2012.

[Signature]

Manager
 Quality Assurance Department
 QATAR STEEL COMPANY (Q.P.S.C)
 PO BOX: 50090, Mesaieed, Qatar
 Tel: 44778778

MILL'S TEST CERTIFICATE



ISO Certificate Number 1130

Customer WELMETAL RESOURCES GROUP LIMITED
 Manufacturer/Supplier QATAR STEEL COMPANY (Q.P.S.C)
 Commodity HIGH YIELD STEEL DEFORMED BARS
 Specification BS4449:2005 Grade:B500B and CS2:2012 Grade:500B
 Destination HONG KONG
 Length 12 MTR



Certificate No QS-19-2503135
 Date : 24 MAR 2019
 Delivery No: 2503135

S I Z E (mm)	Heat No	Chemical Composition (%)																Tensile Test							Test Methods Used
		Bdls	Bdls Wgt MT	C	Si	Mn	P	S	V	Nb	Cu	Ni	Cr	Mo	N	CE	CS AREA	Mass	YS	TS	TS/YS	A5%	Agt%	BD/RBD	
																	mm2	kg/m	Mpa	Mpa					
12	2019C00974	14	27.902	0.18	0.14	0.70	0.011	0.015	0.000	0.002	0.030	0.033	0.014	0.007	0.007	0.31	113.00	0.861	551	611	1.11	21	10.0	PASSED	Chemical Analysis : - ASTM E415 Tensile Test -BS 4449:2005 -BS EN ISO 15630-1 -BS EN ISO 6892-1 Bend -BS 4449:2005 -BS EN ISO 15630-1 Rebend -BS 4449:2005 -BS EN ISO 15630-1
																	113.00	0.877	575	636	1.11	20	10.0	PASSED	
																	113.00	0.860	559	619	1.11	21	10.0	PASSED	
12	2019C00973	1	2.002	0.19	0.14	0.69	0.011	0.015	0.000	0.002	0.038	0.024	0.014	0.007	0.007	0.31	113.00	0.857	566	625	1.10	20	10.0	PASSED	
																	113.00	0.877	589	648	1.10	19	9.0	PASSED	
																	113.00	0.872	586	643	1.10	19	9.0	PASSED	
12	2019C00843	3	6.010	0.20	0.16	0.73	0.011	0.017	0.000	0.002	0.048	0.030	0.019	0.007	0.007	0.33	113.00	0.868	578	639	1.11	20	9.0	PASSED	
																	113.00	0.865	570	629	1.10	19	9.0	PASSED	
																	113.00	0.872	565	629	1.11	20	10.0	PASSED	

We hereby certify that the material described herein has been made to the applicable specification by the process mentioned below and tested in accordance with the requirements of the contract specification.

DR EF/CC -RM (QST)

$$CE = C + Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu) / 15$$

QATAR STEEL REBARS ARE FREE FROM HARMFUL RADIOACTIVE ELEMENTS



BAR PATTERN



BAR PATTERN CODE = QTR3

We certify that the material supplied complies with the requirements of and have been tested at the frequency specified in BS4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS4449:2005 and CS2:2012.

Manager
 Quality Assurance Department
 QATAR STEEL COMPANY (Q.P.S.C)
 PO BOX: 50090, Mesaieed, Qatar
 Tel: 44778778

MILL'S TEST CERTIFICATE

5.1 QTR3



ISO Certificate Number 1130

Customer WELMETAL RESOURCES GROUP LIMITED
 Manufacturer/Supplier QATAR STEEL COMPANY (Q.P.S.C)
 Commodity HIGH YIELD STEEL DEFORMED BARS
 Specification BS4449:2005 Grade:B500B and CS2:2012 Grade:500B
 Destination HONG KONG
 Length 12 MTR



Certificate No QS-19-2503137
 Date : 24 MAR 2019
 Delivery No: 2503137

S I Z E (mm)	Heat No	Chemical Composition (%)															Tensile Test								Test Methods Used
																	CS AREA	Mass	YS	TS	TS/YS	A5%	Agf%	BD/RBD	
		Bdls	Bdls Wgt MT	C	Si	Mn	P	S	V	Nb	Cu	Ni	Cr	Mo	N	CE	mm2	kg/m	Mpa	Mpa					
16	2019D02037	1	1.989	0.18	0.23	0.71	0.009	0.017	0.010	0.000	0.031	0.039	0.021	0.006	0.006	0.31	201.00	1.552	580	646	1.11	21	9.0	PASSED	Chemical Analysis : - ASTM E415 Tensile Test -BS 4449:2005 -BS EN ISO 15630-1 -BS EN ISO 6892-1 Bend -BS 4449:2005 -BS EN ISO 15630-1 Rebend -BS 4449:2005 -BS EN ISO 15630-1
																	201.00	1.563	583	648	1.11	20	10.0	PASSED	
																	201.00	1.554	580	652	1.12	20	9.0	PASSED	
16	2019C01471	8	15.912	0.19	0.23	0.74	0.009	0.020	0.000	0.001	0.045	0.027	0.015	0.007	0.004	0.32	201.00	1.534	578	656	1.14	20	10.0	PASSED	
																	201.00	1.528	574	654	1.14	20	9.0	PASSED	
																	201.00	1.542	576	658	1.14	19	9.0	PASSED	
16	2019C01475	11	21.879	0.19	0.22	0.74	0.009	0.021	0.000	0.001	0.048	0.024	0.022	0.007	0.005	0.32	201.00	1.548	586	663	1.13	19	9.0	PASSED	
																	201.00	1.543	574	657	1.14	19	9.0	PASSED	
																	201.00	1.538	573	660	1.15	19	9.0	PASSED	

We hereby certify that the material described herein has been made to the applicable specification by the process mentioned below and tested in accordance with the requirements of the contract specification.

DR EF/CC -RM (QST)

$$CE = C + Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu) / 15$$

QATAR STEEL REBARS ARE FREE FROM HARMFUL RADIOACTIVE ELEMENTS



BAR PATTERN



BAR PATTERN CODE = QTR3

We certify that the material supplied complies with the requirements of and have been tested at the frequency specified in BS4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS4449:2005 and CS2:2012.

[Signature]

Manager
 Quality Assurance Department
 QATAR STEEL COMPANY (Q.P.S.C)
 PO BOX: 50090, Mesaieed, Qatar
 Tel: 44778778

MILL'S TEST CERTIFICATE

5.1 QTR3



ISO Certificate Number 1130

Customer: WELMETAL RESOURCES GROUP LIMITED
 Manufacturer/Supplier: QATAR STEEL COMPANY (Q.P.S.C)
 Commodity: HIGH YIELD STEEL DEFORMED BARS
 Specification: BS4449:2005 Grade:B500B and CS2:2012 Grade:500B
 Destination: HONG KONG
 Length: 12 MTR



Certificate No: QS-19-2503138
 Date: 24 MAR 2019
 Delivery No: 2503138

S I Z E (mm)	Heat No	Chemical Composition (%)															Tensile Test								Test Methods Used
		Bdls	Bdls Wgt MT	C	Si	Mn	P	S	V	Nb	Cu	Ni	Cr	Mo	N	CE	CS AREA	Mass	YS	TS	TS/YS	A5%	Agt%	BD/RBD	
																	mm2	kg/m	Mpa	Mpa					
20	2019E00082	4	7.908	0.19	0.26	0.78	0.012	0.011	0.000	0.001	0.015	0.013	0.010	0.004	0.006	0.32	314.00	2.401	598	677	1.13	18	9.0	PASSED	Chemical Analysis : - ASTM E415 Tensile Test -BS 4449:2005 -BS EN ISO 15630-1 -BS EN ISO 6892-1 Bend -BS 4449:2005 -BS EN ISO 15630-1 Rebend -BS 4449:2005 -BS EN ISO 15630-1
																	314.00	2.388	592	667	1.13	18	9.0	PASSED	
																	314.00	2.397	582	656	1.13	19	10.0	PASSED	
																	314.00	2.407	600	680	1.14	18	9.0	PASSED	
20	2019E00513	11	21.802	0.19	0.25	0.78	0.013	0.010	0.000	0.002	0.009	0.011	0.010	0.004	0.004	0.32	314.00	2.398	586	654	1.12	19	9.0	PASSED	
																	314.00	2.403	576	648	1.12	20	9.0	PASSED	
																	314.00	2.397	581	650	1.12	19	9.0	PASSED	
																	314.00	2.397	579	645	1.11	19	9.0	PASSED	
20	2019E00512	8	15.856	0.19	0.26	0.78	0.013	0.011	0.000	0.002	0.015	0.014	0.010	0.005	0.003	0.33	314.00	2.397	567	650	1.15	20	9.0	PASSED	
																	314.00	2.407	565	643	1.14	20	9.0	PASSED	
																	314.00	2.385	555	634	1.14	20	10.0	PASSED	
																	314.00	2.389	562	636	1.13	20	10.0	PASSED	

We hereby certify that the material described herein has been made to the applicable specification by the process mentioned below and tested in accordance with the requirements of the contract specification.

DR EF/CC -RM (QST)

$$CE = C + Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu) / 15$$

QATAR STEEL REBARS ARE FREE FROM HARMFUL RADIOACTIVE ELEMENTS



BAR PATTERN



BAR PATTERN CODE = QTR3

We certify that the material supplied complies with the requirements of and have been tested at the frequency specified in BS4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS4449:2005 and CS2:2012.

[Signature]

Manager
 Quality Assurance Department
 QATAR STEEL COMPANY (Q.P.S.C)
 PO BOX: 50090, Mesaieed, Qatar
 Tel: 44778778

MILL'S TEST CERTIFICATE

5.1 QTR3



ISO Certificate Number 1130

Customer: WELMETAL RESOURCES GROUP LIMITED
 Manufacturer/Supplier: QATAR STEEL COMPANY (Q.P.S.C)
 Commodity: HIGH YIELD STEEL DEFORMED BARS
 Specification: BS4449:2005 Grade:B500B and CS2:2012 Grade:500B
 Destination: HONG KONG
 Length: 12 MTR



Certificate No: QS-19-2503139
 Date: 24 MAR 2019
 Delivery No: 2503139

S I Z E (mm)	Heat No	Chemical Composition (%)															Tensile Test								Test Methods Used
																	CS AREA	Mass	YS	TS	TS/YS	A5%	Agt%	BD/RBD	
		Bdls	Bdls Wgt MT	C	Si	Mn	P	S	V	Nb	Cu	Ni	Cr	Mo	N	C/E	mm2	kg/m	Mpa	Mpa					
25	2019D01401	1	1.991	0.19	0.27	0.80	0.010	0.011	0.009	0.000	0.018	0.022	0.023	0.011	0.003	0.33	491.00	3.743	591	672	1.14	19	9.0	PASSED	Chemical Analysis : - ASTM E415 Tensile Test -BS 4449:2005 -BS EN ISO 15630-1 -BS EN ISO 6892-1 Bend -BS 4449:2005 -BS EN ISO 15630-1 Rebend -BS 4449:2005 -BS EN ISO 15630-1
																	491.00	3.742	583	667	1.14	19	9.0	PASSED	
																	491.00	3.738	593	673	1.14	19	9.0	PASSED	
25	2019D01405	6	11.946	0.18	0.26	0.78	0.010	0.012	0.010	0.000	0.041	0.026	0.024	0.010	0.007	0.32	491.00	3.742	593	675	1.14	18	9.0	PASSED	
																	491.00	3.736	586	665	1.14	19	9.0	PASSED	
																	491.00	3.733	581	668	1.15	19	9.0	PASSED	
25	2019E01376	23	45.793	0.20	0.26	0.78	0.010	0.013	0.000	0.002	0.030	0.022	0.016	0.003	0.005	0.34	491.00	3.771	593	690	1.16	18	8.0	PASSED	
																	491.00	3.762	605	695	1.15	18	8.0	PASSED	
																	491.00	3.774	598	699	1.17	18	8.0	PASSED	
																	491.00	3.764	606	696	1.15	18	8.0	PASSED	

We hereby certify that the material described herein has been made to the applicable specification by the process mentioned below and tested in accordance with the requirements of the contract specification.

DR EF/CC -RM (QST)

$$CE = C + Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu) / 15$$

QATAR STEEL REBARS ARE FREE FROM HARMFUL RADIOACTIVE ELEMENTS



BAR PATTERN



BAR PATTERN CODE = QTR3

We certify that the material supplied complies with the requirements of and have been tested at the frequency specified in BS4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS4449:2005 and CS2:2012.

Manager
 Quality Assurance Department
 QATAR STEEL COMPANY (Q.P.S.C)
 PO BOX: 50090, Mesaieed, Qatar
 Tel: 44778778

MILL'S TEST CERTIFICATE

5.1 QTR3



ISO Certificate Number 1130

Customer: WELMETAL RESOURCES GROUP LIMITED
 Manufacturer/Supplier: QATAR STEEL COMPANY (Q.P.S.C)
 Commodity: HIGH YIELD STEEL DEFORMED BARS
 Specification: BS4449:2005 Grade:B500B and CS2:2012 Grade:500B
 Destination: HONG KONG
 Length: 12 MTR



Certificate No: QS-19-2503140
 Date: 24 MAR 2019
 Delivery No: 2503140

S I Z E (mm)	Heat No	Chemical Composition (%)															Tensile Test								Test Methods Used
																	CS AREA	Mass	YS	TS	TS/YS	A5%	Agf%	BD/RBD	
		Bdls	Bdls Wgt MT	C	Si	Mn	P	S	V	Nb	Cu	Ni	Cr	Mo	N	C/E	mm2	kg/m	Mpa	Mpa					
32	2019E01500	50	96.350	0.20	0.26	0.76	0.010	0.012	0.000	0.001	0.029	0.022	0.020	0.003	0.007	0.33	804.00	6.121	602	696	1.16	18	8.0	PASSED	Chemical Analysis : - ASTM E415 Tensile Test -BS 4449:2005 -BS EN ISO 15630-1 -BS EN ISO 6892-1 Bend -BS 4449:2005 -BS EN ISO 15630-1 Rebend -BS 4449:2005 -BS EN ISO 15630-1
																	804.00	6.137	601	692	1.15	18	8.0	PASSED	
																	804.00	6.091	593	686	1.16	19	9.0	PASSED	
																	804.00	6.115	603	694	1.15	18	8.0	PASSED	
32	2019E01499	51	98.279	0.19	0.26	0.77	0.010	0.013	0.000	0.001	0.024	0.019	0.021	0.003	0.006	0.32	804.00	6.104	611	706	1.16	18	8.0	PASSED	
																	804.00	6.098	595	690	1.16	19	9.0	PASSED	
																	804.00	6.092	578	675	1.17	19	9.0	PASSED	
																	804.00	6.126	606	701	1.16	18	8.0	PASSED	
32	2019E01502	36	69.372	0.19	0.26	0.77	0.010	0.013	0.000	0.001	0.033	0.029	0.017	0.003	0.007	0.33	804.00	6.096	584	675	1.16	20	9.0	PASSED	
																	804.00	6.110	566	656	1.16	20	9.0	PASSED	
																	804.00	6.113	596	687	1.15	19	9.0	PASSED	
																	804.00	6.099	587	676	1.15	20	8.0	PASSED	

We hereby certify that the material described herein has been made to the applicable specification by the process mentioned below and tested in accordance with the requirements of the contract specification.

DR EF/CC -RM (QST)

$$CE = C + Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu) / 15$$

QATAR STEEL REBARS ARE FREE FROM HARMFUL RADIOACTIVE ELEMENTS



BAR PATTERN



BAR PATTERN CODE = QTR3

We certify that the material supplied complies with the requirements of and have been tested at the frequency specified in BS4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS4449:2005 and CS2:2012.

(Signature)

Manager
 Quality Assurance Department
 QATAR STEEL COMPANY (Q.P.S.C)
 PO BOX: 50090, Mesaieed, Qatar
 Tel: 44778778

MILL'S TEST CERTIFICATE

5.1 QTR3



ISO Certificate Number 1130

Customer WELMETAL RESOURCES GROUP LIMITED
 Manufacturer/Supplier QATAR STEEL COMPANY (Q.P.S.C)
 Commodity HIGH YIELD STEEL DEFORMED BARS
 Specification BS4449:2005 Grade:B500B and CS2:2012 Grade:500B
 Destination HONG KONG
 Length 12 MTR



Certificate No QS-19-2503141
 Date : 24 MAR 2019
 Delivery No: 2503141

S I Z E (mm)	Heat No	Chemical Composition (%)															Tensile Test								Test Methods Used
																	CS AREA	Mass	YS	TS	TS/YS	A5%	Agf%	BD/RBD	
		Bdls	Bdls Wgt MT	C	Si	Mn	P	S	V	Nb	Cu	Ni	Cr	Mo	N	CE	mm2	kg/m	Mpa	Mpa					
40	2019E01645	4	7.884	0.20	0.25	0.78	0.010	0.014	0.000	0.001	0.029	0.032	0.017	0.005	0.006	0.34	1257.00	9.545	597	716	1.20	17	8.0	PASSED	Chemical Analysis : - ASTM E415 Tensile Test -BS 4449:2005 -BS EN ISO 15630-1 -BS EN ISO 6892-1
																	1257.00	9.589	587	703	1.20	18	8.0	PASSED	
																	1257.00	9.523	594	709	1.19	17	8.0	PASSED	
																	1257.00	9.558	567	678	1.19	18	9.0	PASSED	
40	2019D01947	3	5.913	0.21	0.25	0.80	0.010	0.016	0.010	0.000	0.038	0.035	0.022	0.004	0.004	0.36	1257.00	9.540	575	698	1.21	18	9.0	PASSED	Bend -BS 4449:2005 -BS EN ISO 15630-1
																	1257.00	9.542	578	698	1.21	18	9.0	PASSED	
																	1257.00	9.530	582	706	1.21	17	8.0	PASSED	
																	1257.00	9.574	563	678	1.20	20	9.0	PASSED	
40	2019E01634	22	43.362	0.20	0.24	0.78	0.011	0.010	0.000	0.001	0.023	0.024	0.014	0.003	0.005	0.33	1257.00	9.574	563	678	1.20	20	9.0	PASSED	Rebend -BS 4449:2005 -BS EN ISO 15630-1
																	1257.00	9.587	587	705	1.20	18	8.0	PASSED	
																	1257.00	9.589	578	689	1.19	19	8.0	PASSED	
																	1257.00	9.565	568	682	1.20	19	9.0	PASSED	

We hereby certify that the material described herein has been made to the applicable specification by the process mentioned below and tested in accordance with the requirements of the contract specification.

DR EF/CC -RM (QST)

$$CE = C + Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu) / 15$$

QATAR STEEL REBARS ARE FREE FROM HARMFUL RADIOACTIVE ELEMENTS



BAR PATTERN



BAR PATTERN CODE = QTR3

We certify that the material supplied complies with the requirements of and have been tested at the frequency specified in BS4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS4449:2005 and CS2:2012.

[Signature]

Manager
 Quality Assurance Department
 QATAR STEEL COMPANY (Q.P.S.C)
 PO BOX: 50090, Mesaieed, Qatar
 Tel: 44778778



CERTIFICATE

**Management system as per
EN ISO 9001:2015**

In accordance with TÜV AUSTRIA CERT procedures, it is hereby certified that

SAUDI IRON AND STEEL COMPANY (HADEED)
Madinat Al-Jubail Al-Sinaiyah, Jubail Industrial City,
Jubail, 31961 Kingdom of Saudi Arabia

applies a management system in line with the above standard for the
following scope

The Manufacture of Long & Flat Steel Products

Certificate Registration No. 20100223013657

Valid until 2025-04-01

Initial certification 2013-04-02

Certification Body
at TÜV AUSTRIA CERT GMBH

Vienna, 2022-01-26

This certification was conducted in accordance with TÜV AUSTRIA CERT auditing and certification procedures and is subject to regular surveillance audits. The certificate period is 3 years.
TÜV AUSTRIA CERT GMBH Deutschstraße 10 A-1230 Wien www.tuv.at





MILL TEST CERTIFICATE

MILL NAME	SAUDI IRON & STEEL COMPANY (HADEED) Madinat Al-Jubail Al-sinaiyah, Jubail Industrial City Jubail 31961, Kingdom of Saudi Arabia						CUSTOMER	WELMETAL RESOURCES GROUP LIMITED						DATE OF ISSUE		: 25 May 2022			
														ISO CERTIFICATE NO.		: 20100223013657			
PRODUCT	: HIGH YIELD STEEL DEFORMED BARS												STANDARD		: CS2:2012 / BS4449:2005				
GRADE	: 500B / B500B						CERTIFICATE NO.		: 0002506053				SIZE		: Dia 10mm x 12M				
Technical Requirement			Chemical Composition(%)												Mechanical Properties				
Batch number	Weight (mt)	Mass (Kg/m)	C	Si	Mn	S	P	Cu	Ni	Cr	Mo	V	N	Ceq	Yield strength (N/mm2)	Tensile strength (N/mm2)	Rm/Re	Elongation Agt (%)	Rebent Test
T19572	12.519	0.606	0.219	0.350	0.896	0.030	0.021	0.037	0.028	0.015	0.020	0.004	0.007	0.380	545.75 537.22 598.33	600.33 590.94 676.11	1.10 1.10 1.13	9.0 7.5 8.2	OK OK OK
T19585	128.341	0.602	0.201	0.350	0.894	0.032	0.025	0.034	0.018	0.018	0.018	0.004	0.008	0.361	580.94 564.59 586.80 577.17 542.94	650.65 609.76 657.21 652.21 591.80	1.12 1.08 1.12 1.13 1.09	7.3 7.0 9.8 7.6 9.0	OK OK OK OK OK
T19602	48.691	0.602	0.213	0.340	0.899	0.022	0.039	0.045	0.028	0.016	0.020	0.002	0.005	0.375	542.40 587.39 514.96	612.91 657.87 571.61	1.13 1.12 1.11	7.3 9.1 9.2	OK OK OK
T19606	95.717	0.609	0.213	0.345	0.885	0.033	0.026	0.032	0.029	0.012	0.013	0.004	0.006	0.370	536.10 573.15 563.66	589.71 641.93 608.76	1.10 1.12 1.08	8.2 8.4 9.7	OK OK OK
T19607	123.973	0.606	0.217	0.348	0.908	0.028	0.021	0.044	0.015	0.018	0.013	0.004	0.007	0.379	535.11 529.16 583.04 574.53 524.87 611.05	599.32 592.66 629.68 649.22 593.11 678.26	1.12 1.12 1.08 1.13 1.13 1.11	7.2 7.7 8.8 9.4 8.2 9.7	OK OK OK OK OK OK
T19608	4.129	0.603	0.215	0.342	0.881	0.032	0.026	0.049	0.029	0.016	0.015	0.003	0.008	0.374	567.17 517.08 604.32	635.23 568.79 658.70	1.12 1.10 1.09	8.0 7.8 9.1	OK OK OK
T21510	56.828	0.602	0.215	0.342	0.917	0.022	0.036	0.032	0.021	0.019	0.016	0.002	0.007	0.379	511.04 515.75 566.09	567.26 577.64 622.70	1.11 1.12 1.10	7.5 8.5 8.6	OK OK OK
T21540	6.191	0.600	0.215	0.345	0.895	0.034	0.037	0.047	0.017	0.020	0.012	0.003	0.009	0.375	604.31 523.95 555.56	682.87 565.87 600.01	1.13 1.08 1.08	8.0 9.2 9.6	OK OK OK
T21562	86.560	0.606	0.200	0.343	0.895	0.035	0.031	0.049	0.023	0.013	0.020	0.003	0.007	0.361	601.43 543.82 542.96	661.58 614.51 608.12	1.10 1.13 1.12	8.2 8.5 8.8	OK OK OK
T37486	87.250	0.601	0.207	0.344	0.918	0.026	0.024	0.044	0.025	0.015	0.011	0.003	0.006	0.370	576.37 555.09 583.71	639.77 621.70 630.41	1.11 1.12 1.08	7.9 7.1 8.1	OK OK OK

* $Ceq = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15$

* Manufacturing process Route: EAF/LRF/CCM/RM

* **Statement:** We certify that the material supplied complies with the requirements of BS 4449:2005 & CS2:2012 and have been tested at the frequency specified in BS 4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS 4449:2005 and CS2:2012.

AS THE MANUFACTURER



TOP ROLL:

BOTTOM ROLL:



Note: (•) mark/marks may be found on the bottom roll of the bar at random

SDA8



MILL TEST CERTIFICATE

MILL NAME	SAUDI IRON & STEEL COMPANY (HADEED) Madinat Al-Jubail Al-sinaiyah, Jubail Industrial City Jubail 31961, Kingdom of Saudi Arabia						CUSTOMER	WELMETAL RESOURCES GROUP LIMITED						DATE OF ISSUE		: 25 May 2022				
														ISO CERTIFICATE NO.		: 20100223013657				
PRODUCT	: HIGH YIELD STEEL DEFORMED BARS												STANDARD		: CS2:2012 / BS4449:2005					
GRADE	: 500B / B500B						CERTIFICATE NO.		: 0002506053						SIZE		: Dia 12mm x 12M			
Technical Requirement			Chemical Composition(%)												Mechanical Properties					
Batch number	Weight (mt)	Mass (Kg/m)	C	Si	Mn	S	P	Cu	Ni	Cr	Mo	V	N	Ceq	Yield strength (N/mm2)	Tensile strength (N/mm2)	Rm/Re	Elongation Agt (%)	Rebent Test	
F60605	5.980	0.862	0.209	0.341	0.888	0.026	0.029	0.034	0.034	0.011	0.011	0.003	0.006	0.367	611.71 531.69 587.35	679.00 574.23 651.96	1.11 1.08 1.11	9.2 8.9 8.9	OK OK OK	
F60606	1.996	0.860	0.210	0.340	0.891	0.037	0.038	0.031	0.040	0.012	0.015	0.002	0.005	0.369	556.94 589.01 534.45	623.77 665.58 582.55	1.12 1.13 1.09	9.0 9.7 9.4	OK OK OK	
F60607	3.978	0.872	0.194	0.343	0.880	0.024	0.024	0.032	0.023	0.019	0.014	0.003	0.005	0.352	559.15 566.04 554.61	626.25 639.63 615.62	1.12 1.13 1.11	8.7 9.9 9.9	OK OK OK	
F60608	1.996	0.862	0.197	0.349	0.899	0.028	0.022	0.032	0.030	0.016	0.018	0.003	0.005	0.358	571.21 533.94 522.10	639.76 603.35 569.08	1.12 1.13 1.09	9.0 8.7 9.4	OK OK OK	
F60620	3.971	0.858	0.202	0.341	0.910	0.031	0.029	0.043	0.039	0.010	0.011	0.002	0.008	0.364	525.59 518.25 517.47	578.15 585.62 579.57	1.10 1.13 1.12	8.5 9.0 7.1	OK OK OK	
F60643	3.992	0.859	0.203	0.343	0.920	0.027	0.039	0.040	0.025	0.018	0.010	0.002	0.008	0.367	559.14 601.00 515.68	631.83 655.09 562.09	1.13 1.09 1.09	10.0 9.8 7.5	OK OK OK	
T18876	1.989	0.859	0.219	0.348	0.908	0.021	0.030	0.043	0.014	0.013	0.015	0.003	0.005	0.380	515.49 612.12 604.67	577.35 679.45 677.23	1.12 1.11 1.12	9.7 9.5 9.0	OK OK OK	
T19381	39.626	0.857	0.213	0.341	0.885	0.028	0.034	0.041	0.013	0.016	0.012	0.003	0.008	0.370	586.64 619.09 558.96	633.57 699.57 609.26	1.08 1.13 1.09	7.3 9.3 8.4	OK OK OK	
T19552	1.978	0.878	0.213	0.344	0.887	0.026	0.020	0.043	0.012	0.013	0.017	0.002	0.005	0.371	570.45 599.15 571.35	644.60 659.07 628.48	1.13 1.10 1.10	8.4 7.2 8.2	OK OK OK	
T19559	40.303	0.877	0.216	0.347	0.919	0.030	0.030	0.039	0.019	0.017	0.011	0.002	0.008	0.379	596.88 548.01 583.30	674.47 608.29 629.96	1.13 1.11 1.08	7.9 9.8 9.4	OK OK OK	
T19579	8.011	0.860	0.216	0.343	0.885	0.021	0.028	0.036	0.023	0.015	0.019	0.003	0.010	0.375	617.69 512.01 581.31	667.11 563.21 656.88	1.08 1.10 1.13	8.5 9.6 9.7	OK OK OK	
T19580	6.009	0.875	0.202	0.349	0.893	0.030	0.028	0.036	0.026	0.013	0.019	0.003	0.005	0.362	619.94 569.96 564.12	700.53 621.25 637.46	1.13 1.09 1.13	9.0 9.8 9.6	OK OK OK	

* $Ceq = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15$

* Manufacturing process Route: EAF/LRF/CCM/RM

* **Statement:** We certify that the material supplied complies with the requirements of BS 4449:2005 & CS2:2012 and have been tested at the frequency specified in BS 4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS 4449:2005 and CS2:2012.

AS THE MANUFACTURER



TOP ROLL:

BOTTOM ROLL:



Note: (•) mark/marks may be found on the bottom roll of the bar at random

SDA8



MILL TEST CERTIFICATE

MILL NAME	SAUDI IRON & STEEL COMPANY (HADEED) Madinat Al-Jubail Al-sinaiyah, Jubail Industrial City Jubail 31961, Kingdom of Saudi Arabia						CUSTOMER	WELMETAL RESOURCES GROUP LIMITED							DATE OF ISSUE		: 25 May 2022				
															ISO CERTIFICATE NO.		: 20100223013657				
PRODUCT	: HIGH YIELD STEEL DEFORMED BARS													STANDARD		: CS2:2012 / BS4449:2005					
GRADE	: 500B / B500B						CERTIFICATE NO.		: 0002506053							SIZE		: Dia 16mm x 12M			
Technical Requirement			Chemical Composition(%)													Mechanical Properties					
Batch number	Weight (mt)	Mass (Kg/m)	C	Si	Mn	S	P	Cu	Ni	Cr	Mo	V	N	Ceq	Yield strength (N/mm2)	Tensile strength (N/mm2)	Rm/Re	Elongation Agt (%)	Rebent Test		
T18944	147.571	1.526	0.204	0.342	0.906	0.020	0.039	0.037	0.016	0.012	0.019	0.003	0.005	0.365	606.06	660.60	1.09	9.4	OK		
															520.11	566.92	1.09	8.9	OK		
															523.48	586.30	1.12	9.5	OK		
															511.05	567.26	1.11	7.3	OK		
															558.04	613.85	1.10	7.9	OK		
T18945	41.254	1.526	0.196	0.342	0.911	0.029	0.034	0.049	0.037	0.020	0.013	0.002	0.010	0.361	610.03	671.04	1.10	9.7	OK		
															613.11	680.55	1.11	8.4	OK		
															581.44	645.39	1.11	9.4	OK		
T18946	7.831	1.549	0.208	0.348	0.902	0.032	0.031	0.037	0.025	0.013	0.011	0.003	0.009	0.368	585.61	644.17	1.10	7.9	OK		
															551.46	601.09	1.09	8.8	OK		
															572.28	646.68	1.13	7.5	OK		
T18967	21.762	1.558	0.212	0.341	0.912	0.026	0.036	0.036	0.015	0.018	0.013	0.002	0.009	0.374	543.42	614.06	1.13	7.3	OK		
															581.04	633.34	1.09	8.1	OK		
															612.51	679.88	1.11	9.5	OK		
T18968	13.807	1.530	0.191	0.341	0.890	0.039	0.038	0.040	0.031	0.011	0.010	0.002	0.006	0.349	614.48	669.78	1.09	8.7	OK		
															570.61	627.67	1.10	9.1	OK		
															596.28	649.94	1.09	7.4	OK		
T18974	1.975	1.531	0.192	0.341	0.906	0.027	0.032	0.038	0.027	0.015	0.016	0.002	0.009	0.353	549.22	615.13	1.12	7.4	OK		
															617.03	691.07	1.12	8.7	OK		
															599.13	653.05	1.09	7.3	OK		
T19005	5.924	1.532	0.193	0.350	0.914	0.030	0.031	0.048	0.021	0.012	0.019	0.003	0.008	0.357	592.01	651.21	1.10	10.0	OK		
															581.09	645.01	1.11	7.8	OK		
															570.53	644.70	1.13	7.3	OK		
T19006	9.880	1.554	0.192	0.348	0.895	0.030	0.030	0.036	0.037	0.013	0.018	0.002	0.005	0.353	516.73	573.57	1.11	8.8	OK		
															595.74	649.35	1.09	7.7	OK		
															617.53	679.29	1.10	10.0	OK		
T19009	3.928	1.558	0.205	0.343	0.908	0.026	0.034	0.044	0.025	0.011	0.013	0.002	0.010	0.366	585.86	656.17	1.12	8.2	OK		
															515.69	567.25	1.10	7.5	OK		
															591.42	644.65	1.09	7.9	OK		
T19430	3.944	1.535	0.208	0.345	0.913	0.022	0.037	0.036	0.039	0.011	0.017	0.003	0.009	0.371	600.03	672.03	1.12	7.0	OK		
															555.84	600.30	1.08	9.2	OK		
															585.30	643.83	1.10	7.1	OK		
T19451	11.830	1.555	0.219	0.348	0.911	0.036	0.034	0.047	0.026	0.019	0.017	0.003	0.009	0.384	579.76	649.33	1.12	7.7	OK		
															593.32	670.45	1.13	7.9	OK		
															612.23	661.21	1.08	8.9	OK		
T19456	1.977	1.527	0.208	0.341	0.914	0.022	0.038	0.043	0.029	0.016	0.017	0.002	0.007	0.372	617.03	684.90	1.11	8.3	OK		
															608.76	681.81	1.12	7.00	OK		
															571.14	616.84	1.08	8.10	OK		

* $Ceq = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15$

* Manufacturing process Route: EAF/LRF/CCM/RM

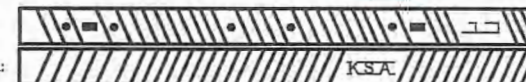
* **Statement:** We certify that the material supplied complies with the requirements of BS 4449:2005 & CS2:2012 and have been tested at the frequency specified in BS 4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS 4449:2005 and CS2:2012.

AS THE MANUFACTURER



TOP ROLL:

BOTTOM ROLL:



Note: (*) mark/marks may be found on the bottom roll of the bar at random

SDA8



MILL TEST CERTIFICATE

MILL NAME	SAUDI IRON & STEEL COMPANY (HADEED) Madinat Al-Jubail Al-sinaiyah, Jubail Industrial City Jubail 31961, Kingdom of Saudi Arabia						CUSTOMER	WELMETAL RESOURCES GROUP LIMITED							DATE OF ISSUE		: 25 May 2022																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
															ISO CERTIFICATE NO.		: 20100223013657																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
PRODUCT	: HIGH YIELD STEEL DEFORMED BARS													STANDARD		: CS2:2012 / BS4449:2005																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
GRADE	: 500B / B500B						CERTIFICATE NO.		: 0002506053					SIZE		: Dia 20mm x 12M																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																										
Technical Requirement			Chemical Composition(%)												Mechanical Properties																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
Batch number	Weight (mt)	Mass (Kg/m)	C	Si	Mn	S	P	Cu	Ni	Cr	Mo	V	N	Ceq	Yield strength (N/mm2)	Tensile strength (N/mm2)	Rm/Re	Elongation Agt (%)	Rebent Test																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
T18844	131.131	2.387	0.201	0.345	0.908	0.026	0.028	0.050	0.023	0.015	0.018	0.003	0.008	0.364	541.98	612.44	1.13	9.6	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															585.83	661.98	1.13	9.9	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															566.79	623.47	1.10	8.5	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															573.65	636.75	1.11	9.0	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															531.11	584.22	1.10	9.2	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
T19280	13.998	2.417	0.201	0.348	0.913	0.040	0.040	0.031	0.021	0.010	0.018	0.003	0.006	0.363	597.69	645.51	1.08	8.5	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															564.76	621.23	1.10	9.2	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															546.85	596.06	1.09	8.1	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															541.17	600.70	1.11	9.6	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															547.42	618.59	1.13	8.2	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
T19285	9.958	2.419	0.204	0.340	0.887	0.021	0.024	0.042	0.028	0.016	0.012	0.003	0.009	0.363	611.31	672.44	1.10	9.2	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															516.94	578.97	1.12	8.7	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															584.82	655.00	1.12	9.0	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															614.30	663.44	1.08	9.7	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															592.50	663.60	1.12	8.3	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
T19301	5.984	2.415	0.197	0.349	0.895	0.033	0.029	0.048	0.034	0.019	0.014	0.003	0.006	0.359	566.57	640.23	1.13	9.6	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															589.22	665.82	1.13	7.5	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															535.58	583.78	1.09	9.3	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															606.95	667.64	1.10	10.0	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															530.10	599.02	1.13	8.6	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
T19302	5.944	2.397	0.202	0.343	0.915	0.021	0.030	0.036	0.027	0.017	0.011	0.003	0.006	0.365	547.65	618.85	1.13	9.0	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															596.82	674.41	1.13	8.5	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															559.09	620.59	1.11	9.5	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															514.84	566.33	1.10	8.2	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															583.42	635.92	1.09	7.5	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
T19310	1.981	2.429	0.195	0.348	0.891	0.036	0.031	0.041	0.035	0.012	0.019	0.002	0.008	0.355	526.38	568.49	1.08	9.4	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															588.19	641.12	1.09	9.0	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															599.83	665.81	1.11	9.6	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															599.33	653.26	1.09	7.3	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															578.48	630.54	1.09	7.8	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
T19311	3.998	2.397	0.206	0.342	0.892	0.023	0.032	0.045	0.025	0.018	0.019	0.003	0.010	0.367	587.38	651.99	1.11	9.8	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															526.94	590.18	1.12	7.5	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															522.49	574.74	1.10	7.7	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															590.57	643.72	1.09	9.9	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															526.79	584.73	1.11	7.2	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
T19319	1.985	2.429	0.204	0.347	0.881	0.029	0.021	0.043	0.034	0.015	0.010	0.003	0.006	0.362	593.24	640.70	1.08	8.1	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															595.61	643.26	1.08	8.90	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
															604.53	652.90	1.08	9.00	OK																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							

* $Ceq = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15$

* Manufacturing process Route: EAF/LRF/CCM/RM

* **Statement:** We certify that the material supplied complies with the requirements of BS 4449:2005 & CS2:2012 and have been tested at the frequency specified in BS 4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS 4449:2005 and CS2:2012.



TOP ROLL:

BOTTOM ROLL:



Note: (*) mark/marks may be found on the bottom roll of the bar at random

SDA8



MILL TEST CERTIFICATE

MILL NAME	SAUDI IRON & STEEL COMPANY (HADEED) Madinat Al-Jubail Al-sinaiyah, Jubail Industrial City Jubail 31961, Kingdom of Saudi Arabia						CUSTOMER	WELMETAL RESOURCES GROUP LIMITED							DATE OF ISSUE		: 25 May 2022			
															ISO CERTIFICATE NO.		: 20100223013657			
PRODUCT	: HIGH YIELD STEEL DEFORMED BARS													STANDARD		: CS2:2012 / BS4449:2005				
GRADE	: 500B / B500B						CERTIFICATE NO.		: 0002506053					SIZE		: Dia 25mm x 12M				
Technical Requirement			Chemical Composition(%)												Mechanical Properties					
Batch number	Weight (mt)	Mass (Kg/m)	C	Si	Mn	S	P	Cu	Ni	Cr	Mo	V	N	Ceq	Yield strength (N/mm2)	Tensile strength (N/mm2)	Rm/Re	Elongation Agt (%)	Rebent Test	
T19730	104.032	3.712	0.209	0.341	0.918	0.031	0.039	0.035	0.024	0.018	0.011	0.002	0.006	0.372	526.29 547.76 619.41 585.80	584.18 597.06 681.35 644.38	1.11 1.09 1.10 1.10	8.2 8.6 7.7 7.5	OK OK OK OK	
T19735	9.992	3.696	0.204	0.346	0.907	0.024	0.029	0.047	0.028	0.019	0.017	0.003	0.006	0.368	598.59 615.26 557.85	664.44 682.94 613.63	1.11 1.11 1.10	8.6 9.0 9.7	OK OK OK	
T19737	131.154	3.744	0.211	0.348	0.911	0.027	0.034	0.036	0.028	0.011	0.013	0.003	0.008	0.373	597.26 548.55 599.67 608.89	668.93 603.40 659.64 688.04	1.12 1.10 1.10 1.13	7.9 8.7 9.2 9.7	OK OK OK OK	
T19738	46.722	3.711	0.217	0.350	0.907	0.025	0.028	0.037	0.020	0.012	0.014	0.004	0.010	0.378	514.67 618.15 554.66	560.98 698.51 599.03	1.09 1.13 1.08	7.3 8.9 8.1	OK OK OK	
T19739	129.240	3.697	0.214	0.342	0.907	0.021	0.020	0.034	0.021	0.012	0.013	0.004	0.006	0.375	599.52 512.23 563.53	659.47 558.33 614.25	1.10 1.09 1.09	8.7 7.9 9.7	OK OK OK	
T19740	112.000	3.699	0.218	0.349	0.888	0.031	0.022	0.038	0.027	0.010	0.018	0.002	0.008	0.376	600.73 608.83 591.93	666.81 663.63 657.04	1.11 1.09 1.11	8.3 8.6 8.3	OK OK OK	
T19741	140.401	3.741	0.213	0.349	0.906	0.037	0.025	0.049	0.024	0.017	0.012	0.003	0.008	0.375	582.44 535.84 526.75	652.33 594.78 574.15	1.12 1.11 1.09	10.0 7.2 7.3	OK OK OK	
T19745	111.111	3.703	0.218	0.346	0.902	0.030	0.038	0.044	0.020	0.013	0.014	0.002	0.007	0.378	611.02 513.23 582.35	659.90 574.82 652.23	1.08 1.12 1.12	8.7 10.0 9.6	OK OK OK	
T19749	37.846	3.741	0.216	0.340	0.906	0.040	0.021	0.033	0.021	0.013	0.019	0.004	0.008	0.378	609.52 567.05 564.60	658.28 623.75 632.35	1.08 1.10 1.12	9.2 7.4 8.4	OK OK OK	
															618.01 618.85 567.99	673.63 668.36 624.79	1.09 1.08 1.10	7.6 10.0 9.4	OK OK OK	
															564.73 544.81 582.36	632.50 604.73 652.24	1.12 1.11 1.12	8.4 8.8 10.0	OK OK OK	
															614.59	676.05	1.10	7.2	OK	

* $Ceq = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15$

* Manufacturing process Route: EAF/LRF/CCM/RM

* **Statement:** We certify that the material supplied complies with the requirements of BS 4449:2005 & CS2:2012 and have been tested at the frequency specified in BS 4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS 4449:2005 and CS2:2012.



AS THE MANUFACTURER

TOP ROLL:

BOTTOM ROLL:



Note: (*) mark/marks may be found on the bottom roll of the bar at random

SDA8



MILL TEST CERTIFICATE

MILL NAME	SAUDI IRON & STEEL COMPANY (HADEED) Madinat Al-Jubail Al-sinaiyah, Jubail Industrial City Jubail 31961, Kingdom of Saudi Arabia						CUSTOMER	WELMETAL RESOURCES GROUP LIMITED						DATE OF ISSUE		: 25 May 2022			
														ISO CERTIFICATE NO.		: 20100223013657			
PRODUCT	: HIGH YIELD STEEL DEFORMED BARS												STANDARD		: CS2:2012 / BS4449:2005				
GRADE	: 500B / B500B						CERTIFICATE NO.		: 0002506053				SIZE		: Dia 32mm x 12M				
Technical Requirement			Chemical Composition(%)												Mechanical Properties				
Batch number	Weight (mt)	Mass (Kg/m)	C	Si	Mn	S	P	Cu	Ni	Cr	Mo	V	N	Ceq	Yield strength (N/mm2)	Tensile strength (N/mm2)	Rm/Re	Elongation Agr (%)	Rebent Test
T19650	5.816	6.233	0.204	0.349	0.890	0.035	0.023	0.046	0.028	0.012	0.015	0.003	0.009	0.363	583.19 599.14 608.83	635.68 671.04 663.62	1.09 1.12 1.09	8.3 8.8 9.3	OK OK OK
T19651	5.767	6.182	0.215	0.349	0.903	0.033	0.037	0.033	0.026	0.010	0.014	0.003	0.007	0.375	588.18 620.56 563.89	664.64 688.82 631.56	1.13 1.11 1.12	9.7 9.0 9.6	OK OK OK
T19653	100.626	6.086	0.206	0.346	0.892	0.031	0.039	0.033	0.029	0.010	0.015	0.003	0.009	0.364	532.04 556.71 563.63	590.56 629.08 608.72	1.11 1.13 1.08	8.3 7.8 9.8	OK OK OK
T19673	110.301	6.183	0.208	0.346	0.883	0.039	0.027	0.030	0.020	0.019	0.012	0.002	0.006	0.365	541.80 567.27 528.36	590.57 618.32 586.48	1.09 1.09 1.11	9.1 9.6 8.0	OK OK OK
T19674	91.969	6.253	0.207	0.342	0.888	0.030	0.020	0.044	0.030	0.014	0.011	0.002	0.005	0.365	599.19 574.59 548.69	659.10 620.56 620.02	1.10 1.08 1.13	8.9 9.2 7.8	OK OK OK
T19679	17.354	6.207	0.208	0.346	0.892	0.033	0.028	0.033	0.013	0.018	0.016	0.004	0.005	0.367	540.53 521.83 620.05	594.58 584.45 675.86	1.10 1.12 1.09	9.0 7.6 8.4	OK OK OK
T19680	46.148	6.157	0.207	0.347	0.917	0.034	0.027	0.039	0.016	0.011	0.014	0.003	0.007	0.369	616.93 614.22 546.68	672.46 675.64 595.88	1.09 1.10 1.09	8.5 9.7 9.8	OK OK OK
T19681	23.212	6.105	0.203	0.347	0.889	0.036	0.031	0.042	0.010	0.018	0.018	0.004	0.006	0.363	516.06 537.86 598.48	577.98 580.89 664.31	1.12 1.08 1.11	10.0 7.4 7.6	OK OK OK
T19682	101.235	6.211	0.216	0.350	0.884	0.030	0.021	0.030	0.021	0.013	0.020	0.003	0.007	0.374	573.77 554.22 611.32	619.67 598.55 666.34	1.08 1.08 1.09	9.2 7.0 9.2	OK OK OK
T19683	119.644	6.273	0.208	0.342	0.897	0.037	0.036	0.033	0.014	0.020	0.013	0.002	0.010	0.368	542.78 531.20 556.91	613.34 584.32 623.74	1.13 1.10 1.12	8.3 7.1 9.3	OK OK OK
															605.26 553.79 600.27 516.78 532.11	665.79 614.70 678.31 563.29 585.32	1.10 1.11 1.13 1.09 1.10	9.2 9.4 8.6 7.4 7.4	OK OK OK OK OK

* $Ceq = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15$

* Manufacturing process Route: EAF/LRF/CCM/RM

* **Statement:** We certify that the material supplied complies with the requirements of BS 4449:2005 & CS2:2012 and have been tested at the frequency specified in BS 4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS 4449:2005 and CS2:2012.

AS THE MANUFACTURER



TOP ROLL:
BOTTOM ROLL:



Note: (*) mark/marks may be found on the bottom roll of the bar at random

SDA8



MILL TEST CERTIFICATE

MILL NAME	SAUDI IRON & STEEL COMPANY (HADEED) Madinat Al-Jubail Al-sinaiyah, Jubail Industrial City Jubail 31961, Kingdom of Saudi Arabia						CUSTOMER	WELMETAL RESOURCES GROUP LIMITED						DATE OF ISSUE		: 25 May 2022				
														ISO CERTIFICATE NO.		: 20100223013657				
PRODUCT	: HIGH YIELD STEEL DEFORMED BARS												STANDARD		: CS2:2012 / BS4449:2005					
GRADE	: 500B / B500B						CERTIFICATE NO.		: 0002506053						SIZE		: Dia 40mm x 12M			
Technical Requirement			Chemical Composition(%)												Mechanical Properties					
Batch number	Weight (mt)	Mass (Kg/m)	C	Si	Mn	S	P	Cu	Ni	Cr	Mo	V	N	Ceq	Yield strength (N/mm2)	Tensile strength (N/mm2)	Rm/Re	Elongation Agt (%)	Rebent Test	
F60542	1.955	9.661	0.191	0.343	0.913	0.027	0.038	0.050	0.030	0.016	0.016	0.003	0.010	0.356	536.45	584.73	1.09	9.9	OK	
F60543	3.911	9.504	0.197	0.343	0.901	0.020	0.028	0.031	0.037	0.012	0.017	0.003	0.009	0.358	529.88	593.47	1.12	8.6	OK	
															588.90	665.46	1.13	7.3	OK	
															551.51	612.18	1.11	9.7	OK	
F60550	61.545	9.577	0.209	0.350	0.905	0.029	0.025	0.048	0.033	0.014	0.017	0.003	0.010	0.372	583.80	653.86	1.12	9.9	OK	
															606.98	655.53	1.08	7.2	OK	
															567.09	618.13	1.09	8.7	OK	
F60551	17.979	9.779	0.207	0.342	0.906	0.031	0.033	0.048	0.040	0.011	0.010	0.002	0.009	0.368	545.27	610.70	1.12	7.1	OK	
															614.99	694.94	1.13	8.6	OK	
															595.78	649.40	1.09	7.5	OK	
F60552	5.947	9.692	0.208	0.341	0.887	0.023	0.035	0.044	0.034	0.011	0.017	0.002	0.006	0.367	544.58	588.14	1.08	7.0	OK	
															524.93	566.92	1.08	8.5	OK	
															543.38	586.85	1.08	9.2	OK	
F60580	21.418	9.688	0.207	0.350	0.918	0.035	0.031	0.046	0.038	0.016	0.015	0.003	0.008	0.372	600.40	654.44	1.09	7.3	OK	
															566.73	629.07	1.11	8.1	OK	
															532.59	591.18	1.11	9.8	OK	
F60581	106.236	9.502	0.201	0.340	0.886	0.029	0.039	0.044	0.029	0.017	0.019	0.002	0.010	0.361	566.24	611.54	1.08	9.3	OK	
															582.80	652.74	1.12	9.3	OK	
															574.34	637.52	1.11	8.4	OK	
F60586	11.845	9.569	0.206	0.349	0.885	0.031	0.023	0.048	0.017	0.018	0.020	0.002	0.010	0.366	570.35	638.79	1.12	7.4	OK	
															581.72	657.34	1.13	7.8	OK	
															589.26	648.18	1.10	8.0	OK	
F60587	78.166	9.697	0.205	0.342	0.919	0.026	0.022	0.039	0.039	0.011	0.013	0.002	0.009	0.369	607.46	668.20	1.10	7.4	OK	
															571.47	634.33	1.11	8.8	OK	
															538.52	597.76	1.11	8.6	OK	
F60590	9.779	9.651	0.210	0.347	0.911	0.032	0.027	0.047	0.027	0.018	0.012	0.003	0.008	0.373	581.70	628.23	1.08	8.3	OK	
															586.75	639.55	1.09	9.4	OK	
															589.30	636.45	1.08	7.8	OK	
															516.24	578.19	1.12	9.1	OK	
															602.11	650.28	1.08	8.2	OK	
															526.83	579.51	1.10	8.4	OK	

* $Ceq = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15$

* Manufacturing process Route: EAF/LRF/CCM/RM

* **Statement:** We certify that the material supplied complies with the requirements of BS 4449:2005 & CS2:2012 and have been tested at the frequency specified in BS 4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS 4449:2005 and CS2:2012.

AS THE MANUFACTURER



TOP ROLL:



BOTTOM ROLL:



Note: (•) mark/marks may be found on the bottom roll of the bar at random

SDA8

CERTIFICATE OF APPROVAL



Quality Management System Certification

This is to certify that

Conares Metal Supply Ltd (Rebar Mill Division)

at its establishment at

**Plot No. S40506 -508 , Jebel Ali Free Zone (South), Dubai, 2854,
United Arab Emirates**

has been approved by the Authority to the following management system standard using the processes and procedures registered with the Authority:

BS EN ISO 9001: 2015

Scope of certification:

Production of hot rolled steel bar for the reinforcement of concrete.

This certificate remains the property of the Authority and is issued subject to the Regulations of the Authority. This certificate is uncontrolled when printed. To check the validity of this certificate please scan the above Static QR Code with the CARES Cloud App or contact us on +44 1732 450000.

CERTIFICATE NUMBER

1284

FIRST APPROVAL

July 2011

ISSUE DATE

04 May 2021

EXPIRY DATE

04 May 2024

SIGNED FOR UK CERTIFICATION AUTHORITY FOR REINFORCING STEELS

Lee Brankley,
Chief Executive Officer

The use of the Accreditation Mark indicates accreditation in respect of those activities covered by the accreditation certificate number 0002.

UK Certification Authority for Reinforcing Steels, Pembroke House, 21 Pembroke Road, Sevenoaks, Kent, TN13 1XR, UK.

A Company Limited by Guarantee. Registered in England No. 1762448.

Cert. Ref: AIC112010 58001 337 v02



0002

CONARES

CONARES METAL SUPPLY LIMITED

Plot No 940505/40507/40508, Jebel Ali South Industrial Street, Street No: 1000, Po Box: 2854 Dubai, UAE

كوناريس

Mill Test Certificate
ACCORDING TO EN 10204-3.1(2004)

CUSTOMER: WELMETAL RESOURCES GROUP LIMITED
 SPECIFICATION/GRADE: CS2:2012 GRADE-500B
 Bundle Specification: 12.0M X 2.0MT
 No. of Bundles (Nos): 18
 Total Weight (MT): 25.987

Date: 23/03/2022
 Certificate No: CMS/22/0000002260
 Test Report No: V274100200
 Process Route: Quenched & Tempered
 ISO No: 1284

Heat	Nominal Bar Size (mm)	Mechanical Analysis								Chemical Analysis (%)												
		Unit Mass (Kg/m)	Cross Section Area (mm²)	Deviation from mass per meter (%)	Yield Strength (MPa)	Tensile Strength (MPa)	Tensile/ Yield strength ratio	Total Elongation at maximum force (%)	Rebend Test	C	Mn	Si	S	P	Cr	Mo	V	Ni	Cu	N	B	Ceq
CS-2663	10	0.610	77.707	-1.13	563.0	649.0	1.15	6.7	Pass	0.20	0.68	0.19	0.016	0.017	0.010	0.000	0.007	0.010	0.002	0.006	0.0003	0.32
		0.611	77.834	-0.97	548.0	643.0	1.17	7.7	Pass													
		0.604	76.943	-2.11	559.0	637.0	1.14	6.2	Pass													
CS2:2012 GRADE 500B Requirement:				± 4.5	500-650	...	≥ 1.08	≥ 5		≤ 0.22	...	...	≤ 0.05	≤ 0.05	...	...	...	...	≤ 0.8	≤ 0.012	≤ 0.0008	≤ 0.50

Certification

WE CERTIFY THAT THE MATERIAL SUPPLIED AND COMPLIED WITH THE REQUIREMENT AND HAS BEEN TESTED AT THE FREQUENCY SPECIFIED IN BS4449: 2005 & CS2:2012. THE RESULTS OF THE SURFACE GEOMETRY MEASUREMENT ARE IN COMPLIANCE WITH CS2:2012. CARBON EQUIVALENT VALUE (Ceq) = $C + (Mn/6) + (Cr+Mo+V)/5 + (Ni+Cu)/15$. THE RELATIVE RIB AREA, r_r , FOR RIBBED STEEL REINFORCING BARS ARE CALCULATED BY USING THE SIMPSON'S RULE FORMULA.

Remarks

The product is free from radioactive elements

Bar Marking: CS2:2012 GRADE-500B (UAE2)



Bar mark explanation:

CNS

DCL

...

...

...

Company logo:

Dubai DCL mark (from 03/2021)

CONARES mark (from 03/2021)

Mill Number:

Country code:

Manager, QA/QC



Doc No: CS-001A-02-F-001

Issue Date: 19.12.2018

Revision: 00

Conares Metal Supply Limited | T: +97148835111 | F: +97148836611 | P.O. Box 2854, Dubai, UAE | www.conares.com

CONARES

CONARES METAL SUPPLY LIMITED

P.O. Box 2854, Jebel Ali South Industrial Street, Street No: 1000, P.O. Box: 2854 Dubai, UAE

كوناريس

Mill Test Certificate
ACCORDING TO EN 10204-3.1(2004)

CUSTOMER: WELMETAL RESOURCES GROUP LIMITED
 SPECIFICATION/GRADE: CS2:2012 GRADE-500B
 Bundle Specification: 12.0M X 2.0MT
 No. of Bundles: (No's) 34
 Total Weight: (MT) 62.093

Date: 23/03/2022
 Certificate No.: CMS/22/0000002312
 Test Report No.: V114100300
 Process Route: Quenched & Tempered
 ISO No.: 1284

Heat	Nominal Bar Size (mm)	Mechanical Analysis								Chemical Analysis (%)												
		Unit Mass (Kg/m)	Cross Section Area (mm²)	Deviation from mass per meter (%)	Yield Strength (MPa)	Tensile Strength (MPa)	Tensile/ Yield strength ratio	Total Elongation at maximum force (%)	Reberd Test	C	Mn	Si	S	P	Cr	Mo	V	Ni	Cu	N	B	Ceq
CS-2691	12	0.870	110.828	-2.03	562.0	645.0	1.15	6.8	Pass	0.21	0.67	0.23	0.025	0.036	0.021	0.001	0.010	0.027	0.043	0.005	0.0003	0.33
		0.871	110.955	-1.91	568.0	649.0	1.14	6.4	Pass													
		0.876	111.592	-1.35	555.0	631.0	1.14	7.1	Pass													
CS2:2012 GRADE-500B Requirement:				±4.5	500-650	---	≥1.08	≥5		≤0.22	---	---	≤0.05	≤0.05	---	---	---	---	≤0.8	≤0.012	≤0.0008	≤0.50

Certification

WE CERTIFY THAT THE MATERIAL SUPPLIED AND COMPLIED WITH THE REQUIREMENT AND HAS BEEN TESTED AT THE FREQUENCY SPECIFIED IN EN 10204-3.1(2004) & CS2:2012. THE RESULTS OF THE SURFACE GEOMETRY MEASUREMENT ARE IN COMPLIANCE WITH CS2:2012. CARBON EQUIVALENT VALUE (Ceq) = C + (Mn/6) + (Cr+Mo+V)/5 + (Ni+Cu)/15. THE RELATIVE RIB AREA, R_r, FOR RIBBED STEEL REINFORCING BARS ARE CALCULATED BY USING THE SIMPSON'S RULE FORMULA.

Remarks

The product is free from radioactive elements

Bar Marking CS2:2012 GRADE-500B (UAE2)



THE MARK/MARKS MAY BE FOUND ON "SIDE/GND" OF THE BAR AT ANY POINT

Bar mark explanation:-

DCL	Company logo
CMS	Double DCL mark/grade (CS2:2012)
UAE	UAE CONARES mark/grade (UAE2)
500B	Mn Number (500)
500B	Country code (UAE)

Manager: QA&QC



CONARES

CONARES METAL SUPPLY LIMITED

Plot No S40506/40507/40508, Jebel Ali South Industrial Street, Street No: 1080, Po Box: 2854 (Dubai), UAE

كونا ريس

Mill Test Certificate
ACCORDING TO EN 10204-3.1(2004)

CUSTOMER: WELMETAL RESOURCES GROUP LIMITED
SPECIFICATION/GRADE: CS2/2012 GRADE-500B
Bundle Specification: 12.0M X 2.0MT
No. of Bundles (No's): 3
Total Weight (MT): 6.03

Date: 23/03/2022
Certificate No.: CMS/22/0000002365
Test Report No.: V164100300
Process Route: Quenched & Tempered
ISO No: 1284

Heat	Nominal Bar Size (mm)	Mechanical Analysis								Chemical Analysis (%)												
		Unit Mass (Kg/m)	Cross Section Area (mm²)	Deviation from mass per meter (%)	Yield Strength (MPa)	Tensile Strength (MPa)	Tensile/ Yield strength ratio	Total Elongation at maximum force (%)	Rebend Test	C	Mn	Si	S	P	Cr	Mo	V	Ni	Cu	N	B	Ceq
CS-2653	18	1.552	197.707	-1.77	552.0	636.0	1.15	7.1	Pass	0.22	0.80	0.26	0.033	0.027	0.011	0.002	0.006	0.020	0.026	0.006	0.0003	0.36
		1.556	198.217	-1.52	569.0	662.0	1.16	6.8	Pass													
		1.548	197.197	-2.03	561.0	644.0	1.15	7.2	Pass													
CS2/2012 GRADE-500B Requirement				± 4.5	500-650	...	≥ 1.08	≥ 5		≤ 0.22	...	...	≤ 0.05	≤ 0.05	...	...	—	...	≤ 0.8	≤ 0.012	≤ 0.0008	≤ 0.50

Certification

WE CERTIFY THAT THE MATERIAL SUPPLIED AND COMPLIED WITH THE REQUIREMENT AND HAS BEEN TESTED AT THE FREQUENCY SPECIFIED IN BS4449: 2005 & CS2/2012. THE RESULTS OF THE SURFACE GEOMETRY MEASUREMENT ARE IN COMPLIANCE WITH CS2/2012. CARBON EQUIVALENT VALUE (Ceq) = C + (Mn/6) + (Cr+Mo+V)/5 + (Ni+Cu)/15. THE RELATIVE RIB AREA, f_r , FOR RIBBED STEEL REINFORCING BARS ARE CALCULATED BY USING THE SIMPSON'S RULE FORMULA.

Remarks

The product is free from radioactive elements.

Bar Marking: CS2/2012 GRADE-500B (UAE2)



Bar mark explanation:-

CMS	Company Logo
DCL **	Dubai DCL mark (grade: 500B)
** **	USE CONARES mark (grade: 500B)
50B	Marking number (B)
UAE	Country code (UAE)



Manager QA/QC

CONARES

CONARES METAL SUPPLY LIMITED

Plot No S40506/40507/40508, Jebel Ali South Industrial Street, Street No. 1990, Po Box: 2854 Dubai, UAE.

كونا ريس

Mill Test Certificate
ACCORDING TO EN 10204-3.1(2004)

CUSTOMER: WELMETAL RESOURCES GROUP LIMITED
SPECIFICATION/GRADE: CS2.2012 GRADE-500B
Bundle Specification: 12.0M X 2.0MT
No. of Bundles (Ties): 1
Total Weight (M.T): 2.015

Date: 25/03/2022
Certificate No: CMS/22/0000002441
Test Report No: V204100200
Process Route: Quenched & Tempered
ISO No: 1284

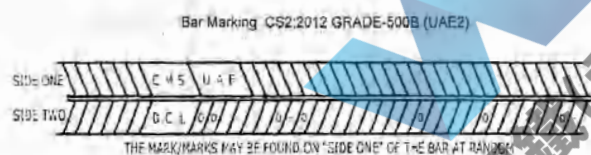
Heat	Nominal Bar Size (mm)	Mechanical Analysis								Chemical Analysis (%)												
		Unit Mass (Kg/m)	Cross Section Area (mm²)	Deviation from mass per meter (%)	Yield Strength (MPa)	Tensile Strength (MPa)	Tensile/ Yield strength ratio	Total Elongation at maximum force (%)	Rebend Test	C	Mn	Si	S	P	Cr	Mo	V	Ni	Cu	N	B	Ceq
CS-2558	20	2.435	310.191	-1.42	546.0	626.0	1.15	6.9	Pass	0.21	0.68	0.19	0.017	0.016	0.010	0.000	0.007	0.010	0.004	0.006	0.0003	0.33
		2.426	309.045	-1.78	549.0	636.0	1.16	7.6	Pass													
		2.442	311.083	-1.13	558.0	645.0	1.16	7.7	Pass													
CS2.2012 GRADE-500B Requirement				± 4.5	500-650	—	≥ 1.08	≥ 5		≤ 0.22	—	—	≤ 0.05	≤ 0.05	—	—	—	—	≤ 0.8	≤ 0.012	≤ 0.0008	≤ 0.50

Certification

WE CERTIFY THAT THE MATERIAL SUPPLIED AND COMPLIED WITH THE REQUIREMENT AND HAS BEEN TESTED AT THE FREQUENCY SPECIFIED IN BS4449: 2005 & CS2.2012. THE RESULTS OF THE SURFACE GEOMETRY MEASUREMENT ARE IN COMPLIANCE WITH CS2.2012. CARBON EQUIVALENT VALUE (Ceq) = $C + (Mn/6) + (Cr+Mo+V)/5 + (Ni+Cu)/15$. THE RELATIVE RIB AREA, R_R FOR RIBBED STEEL REINFORCING BARS ARE CALCULATED BY USING THE SIMPSON'S RULE FORMULA.

Remarks

The product is free from radioactive elements.



Bar mark explanation:-

01/5

01/5

01/5

01/5

01/5

01/5

Company logo

Dubai DCL mark (Grade 500B)

UAE CARBON mark grade (BS 500B)

Mil Number (5)

C Country code (S.S)

Manager- QA&QC



CONARES

CONARES METAL SUPPLY LIMITED

Plot No S40506/40507/40508, Jebel Ali South Industrial Street, Street No: 1000, Po Box: 2854 Dubai, UAE.

كوناريس

Mill Test Certificate
ACCORDING TO EN 10204-3.1(2004)

CUSTOMER: WEL METAL RESOURCES GROUP LIMITED
 SPECIFICATION/GRADE: CS2 2012 GRADE-500B
 Bundle Specification: 12.0M X 2.0MT
 No. of Bundles (Nos): 45
 Total Weight (MT): 91.485

Date: 23/03/2022
 Certificate No: CMS/22/0000002452
 Test Report No: V174100100
 Process Route: Quenched & Tempered
 ISO No: 1284

Heat	Nominal Bar Size (mm)	Mechanical Analysis								Chemical Analysis (%)												
		Unit Mass (Kg/m)	Cross Section Area (mm ²)	Deviation from mass per meter (%)	Yield Strength (MPa)	Tensile Strength (MPa)	Tensile/ Yield strength ratio	Total Elongation at maximum force (%)	Rebind Test	C	Mn	Si	S	P	Cr	Mo	V	Ni	Cu	N	B	Ceq
CS-2177	25	3.797	483.694	-1.28	559.0	647.0	1.16	8.5	Pass													
		3.777	481.146	-1.90	566.0	662.0	1.17	7.7	Pass	0.21	0.72	0.20	0.017	0.013	0.010	0.000	0.004	0.012	0.013	0.005	0.0003	0.33
		3.813	485.732	-0.96	546.0	631.0	1.16	8.7	Pass													
CS2-2012 GRADE-500B Requirement				± 4.5	500-650		≥ 1.08	≥ 5		≤ 0.22			≤ 0.05	≤ 0.05					≤ 0.8	≤ 0.012	≤ 0.0008	≤ 0.50

Certification

WE CERTIFY THAT THE MATERIAL SUPPLIED AND COMPLIED WITH THE REQUIREMENT AND HAS BEEN TESTED AT THE FREQUENCY SPECIFIED IN BS 4449: 2006 & CS2:2012.

THE RESULTS OF THE SURFACE GEOMETRY MEASUREMENT ARE IN COMPLIANCE WITH CS2:2012.

CARBON EQUIVALENT VALUE (Ceq) = $C + (Mn/6) + (Cr+Mo+V)/5 + (Ni+Cu)/15$.

THE RELATIVE RIB AREA, FR, FOR RIBBED STEEL REINFORCING BARS ARE CALCULATED BY USING THE SIMPSON'S RULE FORMULA.

Remarks

The product is free from radioactive elements.

Bar Marking: CS2:2012 GRADE-500B (UAE2)



Bar mark explanations:

CMS

QCL

A

S

500B

Company logo

Dubai Office: Mark (grade: 500B)

CONARES mark equals BS 4449:2006

Mill Identification

Country code (UAE)

Manager: J.A.S.Q.



CONARES

CONARES METAL SUPPLY LIMITED

Plot No S49508/M0507/M0508, Jebel Ali South Industrial Street, Street No: 1900, P.O. Box: 2854 Dubai, UAE.

كونا ريس

Mill Test Certificate
ACCORDING TO EN 10204-3.1(2004)

CUSTOMER: WEL METAL RESOURCES GROUP LIMITED
 SPECIFICATION/GRADE: CS2:2012 GRADE-500B
 Bundle Specification: 12.0M X 2.0MT
 No. of Barrels (Nos): 3
 Total Weight (MT): 5.907

Date: 23/03/2022
 Certificate No: CMS/22/0000002463
 Test Report No: AU2826501100
 Process Route: Quenched & Tempered
 ISO No: 1284

Heat	Nominal Bar Size (mm)	Mechanical Analysis								Chemical Analysis (%)												
		Unit Mass (Kg/m)	Cross Section Area (mm ²)	Deviation from mass per meter (%)	Yield Strength (MPa)	Tensile Strength (MPa)	Tensile/Yield strength ratio	Total Elongation at maximum force (%)	Rebend Test	C	Mn	Si	S	P	Cr	Mo	V	Ni	Cu	N	B	Ceq
CS-2158	32	6.189	788.4	-1.9	558.0	671.0	1.20	7.8	Pass													
		6.267	798.3	-0.7	570.0	686.0	1.20	9.6	Pass	0.22	0.75	0.25	0.032	0.026	0.012	0.002	0.010	0.019	0.027	0.005	0.0002	0.36
		6.237	794.5	-1.2	545.0	665.0	1.22	8.3	Pass													
CS2:2012 GRADE-500B Requirement:				± 4.5	500-650	--	≥ 1.08	≥ 5		≤ 0.22	--	--	≤ 0.05	≤ 0.05	--	--	--	--	≤ 0.8	≤ 0.012	≤ 0.0008	≤ 0.50

Certification

WE CERTIFY THAT THE MATERIAL SUPPLIED AND COMPLIED WITH THE REQUIREMENT AND HAS BEEN TESTED AT THE FREQUENCY SPECIFIED IN BS4449: 2006 & CS2:2012. THE RESULTS OF THE SURFACE GEOMETRY MEASUREMENT ARE IN COMPLIANCE WITH CS2:2012.

CARBON EQUIVALENT VALUE (Ceq) = $C + (Mn/6) + (Cr+Mo+V)/5 + (Ni+Cu)/15$.

THE RELATIVE RIB AREA, f_r , FOR RIBBED STEEL REINFORCING BARS ARE CALCULATED BY USING THE SIMPSON'S RULE FORMULA

Remarks

The product is free from radioactive elements

Bar Marking: CS2:2012 GRADE-500B (UAE2)



Bar mark explanation:

CMS
 DCL **

 500
 S

Company logo:
 Dubai DCL max (grade BS2008)
 AISI CARBON steel grade 500B008
 Mill Number (W)
 Country code (UAE)



Manager QA/QC

Mill Test Certificate
ACCORDING TO EN 10204-3.1(2004)

CUSTOMER	WELMETAL RESOURCES GROUP LIMITED
SPECIFICATION/GRADE	CS2:2012 GRADE-500B
Bundle Specification	12.0M X 2.0MT
No. of Bundles (No's)	3
Total Weight (MT)	6.036

Date	23/03/2022
Certificate No.	CMS/22/0000002605
Test Report No.	AV224100100
Process Route	Quenched & Tempered
ISO No	1284

Heat	Nominal Bar Size (mm)	Mechanical Analysis								Chemical Analysis (%)												
		Unit Mass (Kg/m)	Cross Section Area (mm ²)	Deviation from mass per meter (%)	Yield Strength (MPa)	Tensile Strength (MPa)	Tensile/Yield strength ratio	Total Elongation at maximum force (%)	Rebend Test	C	Mn	Si	S	P	Cr	Mo	V	Ni	Cu	N	B	Ceq
MSM-1408	40	9.474	1206.879	-3.95	559.0	676.0	1.21	9.4	Pass	0.20	0.70	0.26	0.017	0.017	0.120	0.011	0.003	0.060	0.230	0.009	0.0003	0.36
		9.471	1206.497	-3.98	561.0	680.0	1.21	8.7	Pass													
		9.505	1210.828	-3.64	558.0	672.0	1.20	9.3	Pass													
CS2 2012 GRADE 508B Requirement				± 4.5	500-650	---	≥ 1.08	≥ 5		≤ 0.22	..	..	≤ 0.05	≤ 0.05		...	..	...	≤ 0.8	≤ 0.012	≤ 0.0008	≤ 0.50

Certification

WE CERTIFY THAT THE MATERIAL SUPPLIED AND COMPLIED WITH THE REQUIREMENT AND HAS BEEN TESTED AT THE FREQUENCY SPECIFIED IN BS4449: 2005 & CS2:2012. THE RESULTS OF THE SURFACE GEOMETRY MEASUREMENT ARE IN COMPLIANCE WITH CS2:2012.

$$\text{CARBON EQUIVALENT VALUE (Ceq)} = \text{C} + (\text{Mn}/6) + (\text{Cr} + \text{Mo} + \text{V})/5 + (\text{Ni} + \text{Cu})/15.$$

THE RELATIVE RIB AREA, f_r , FOR RIBBED STEEL REINFORCING BARS ARE CALCULATED BY USING THE SIMPSON'S RULE FORMULA

Remarks

REMARKS
The product is free from radioactive elements

Bar Marking CS2:2012 GRADE-500B (UAE2)



THE MARK/MARKS MAY BE FOUND ON "SIDE ONE" OF THE BAR AT RANDOM

Bar mark explanation:

 CMS

DCL**

177

lll

Company logo

Dubai DCL mark (Grade B) 1081

UK CABLE: 0800 900 1000

OK CASES THAT R

Mill Number (9)

—

C Country code (5)

1

Manager QA&QC



Dr. D. G. S. B. M. G. F. 1034

Issue Date: 29.12.2018

Revision 00

Conares Metal Supply Limited | T: +97148835111 | F: +97148836611 | P.O. Box 2854, Dubai, UAE | www.conares.com

CERTIFICATE OF APPROVAL



Quality Management System Certification

This is to certify that

Qatar Steel Company FZE

at its establishment at

Jebel Ali Free Zone, Dubai 18255 , United Arab Emirates

has been approved by the Authority to the following management system standard using the processes and procedures registered with the Authority:

BS EN ISO 9001: 2015

Scope of certification:

Production of hot rolled steel bar and coil for the reinforcement of concrete

This certificate remains the property of the Authority and is issued subject to the Regulations of the Authority. This certificate is uncontrolled when printed. To check the validity of this certificate please scan the above Static QR Code with the CARES Cloud App or contact us on +44 1732 450000.

CERTIFICATE NUMBER

1147

FIRST APPROVAL

July 2007

ISSUE DATE

21 December 2020

EXPIRY DATE

21 December 2023

SIGNED FOR UK CERTIFICATION AUTHORITY FOR REINFORCING STEELS

Lee Brankley,
Chief Executive Officer

The use of the Accreditation Mark indicates accreditation in respect of those activities covered by the accreditation certificate number 0002.

UK Certification Authority for Reinforcing Steels, Pembroke House, 21 Pembroke Road, Sevenoaks, Kent, TN13 1XR, UK.

A Company Limited by Guarantee. Registered in England No. 1762448.

Cert. Ref: AIC112010 46201 197 v02



0002

MILL'S TEST CERTIFICATE

Contract No.

Customer

Manufacturer/Supplier

Commodity

Specification

Process Route

Destination

Length

To whom it may concern

QATAR STEEL COMPANY FZE

HIGH YIELD STEEL DEFORMED BAR

BS4449:2005 Grade:B500B and CS2:2012 Grade:500B

RM (QST)

HONG KONG

12 MTR

ISO9001 Certificate Number 1147

QATAR STEEL COMPANY FZE

Plot No. B055S06 A & B, 07 & A, MO0757

Between R/A 7& 8, Jebel Ali Free Zone, Dubai, UAE

Ph: 00971 4 8053111 ; Fax No: 00971 4 8053222

Certificate No

Date :

30-DEC-2021

Delivery No:

SIZE (mm)	Heat No	CHEMICAL COMPOSITION (%)														Tensile Test								Test Methods Used		
		Bdls	Bdls Wgt MT	C	Si	Mn	P	S	V	Cu	Ni	Cr	N	Mo	CE	CS AREA	Mass	YS	TS	TS/YS	EL%	Agt%	BD/RBD			
																mm²	kg/m	Mpa	Mpa							
10	ALE562			0.23	0.24	0.72	0.018	0.019	0.010	0.110	0.040	0.120	0.008	0.030	0.39	75.80	0.609	553	637	1.15	20	7	PASSED	Tensile Test		
																76.18	0.610	558	642	1.15	21	8	PASSED	-BS 2005:4449		
																75.41	0.608	559	643	1.15	20	7	PASSED	-BS EN ISO 15630-1		
																										-BS EN ISO 6892-1
																										Bend
																										-BS 2005:4449
																										-BS EN ISO 15630-1
																										Rebend
																										-BS 2005:4449
																										-BS EN ISO 15630-1

We hereby certify that the material described herein has been made to the applicable specification by the process mentioned below and tested in accordance with the requirements of the contract specification .
RM (QST)

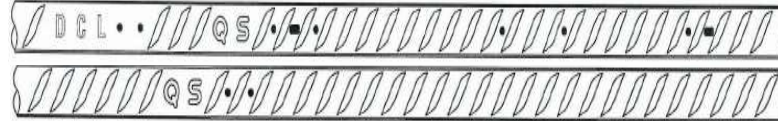
$$CEQ = C + Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu) / 15$$

QATAR STEEL REBARS ARE FREE FROM HARMFUL RADIOACTIVE ELEMENTS

BAR PATTERN

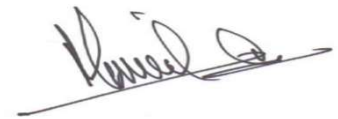
D10- D32

D40



(·) mark may be found on the opposite side of the bar at random

We certify that the material supplied complies with the requirements and have been tested at the frequency specified in BS4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS4449:2005 and CS2:2012.



Manager
Technical Department



Validate with the
CARES Cloud App



ISO 14001:2015 REGISTERED FIRM
CERT. NO.: ME/14/2015



MILL'S TEST CERTIFICATE

Contract No.

Customer

Manufacturer/Supplier

Commodity

Specification

Process Route

Destination

Length

To whom it may concern

QATAR STEEL COMPANY FZE

HIGH YIELD STEEL DEFORMED BAR

BS4449:2005 Grade:B500B and CS2:2012 Grade:500B

RM (QST)

HONG KONG

12 MTR

ISO9001 Certificate Number 1147

QATAR STEEL COMPANY FZE

Plot No. B055S06 A & B,07 & A, MO0757

Between R/A 7& 8, Jebel Ali Free Zone,Dubai, UAE

Ph: 00971 4 8053111 ; Fax No: 00971 4 8053222

Certificate No

Date :

30-DEC-2021

Delivery No:

SIZE (mm)	Heat No	CHEMICAL COMPOSITION (%)														Tensile Test								Test Methods Used
		Bdls	Bdls Wgt MT	C	Si	Mn	P	S	V	Cu	Ni	Cr	N	Mo	CE	CS AREA	Mass	YS	TS	TS/YS	EL%	Agt%	BD/RBD	
																mm²	kg/m	Mpa	Mpa					
12	ALF175			0.21	0.22	0.75	0.015	0.020	0.010	0.070	0.040	0.100	0.009	0.020	0.37	108.79	0.854	586	685	1.17	19	8	PASSED	Tensile Test
																109.04	0.856	564	662	1.17	18	6	PASSED	-BS 2005:4449
																109.81	0.862	596	693	1.16	19	7	PASSED	-BS EN ISO 15630-1
																								-BS EN ISO 6892-1
																								Bend
																								-BS 2005:4449
																								-BS EN ISO 15630-1
																								Rebend
																								-BS 2005:4449
																								-BS EN ISO 15630-1

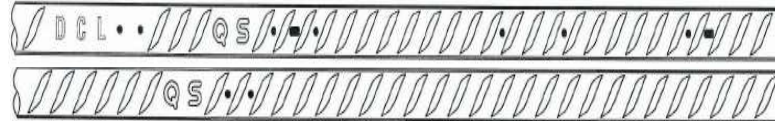
We hereby certify that the material described herein has been made to the applicable specification by the process mentioned below and tested in accordance with the requirements of the contract specification .
RM (QST) $CEQ=C + Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu) / 15$

QATAR STEEL REBARS ARE FREE FROM HARMFUL RADIOACTIVE ELEMENTS

BAR PATTERN

D10- D32

D40



(·) mark may be found on the opposite side of the bar at random

We certify that the material supplied complies with the requirements and have been tested at the frequency specified in BS4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS4449:2005 and CS2:2012.



Manager
Technical Department



Validate with the
 CARES Cloud App



ISO 14001:2015 REGISTERED FIRM
 CERT. NO.: ME/14/2015



MILL'S TEST CERTIFICATE

Contract No.

Customer

To whom it may concern

Manufacturer/Supplier

QATAR STEEL COMPANY FZE

Commodity

HIGH YIELD STEEL DEFORMED BAR

Specification

BS4449:2005 Grade:B500B and CS2:2012 Grade:500B

Process Route

RM (QST)

Destination

HONG KONG

Length

12 MTR

QATAR STEEL COMPANY FZE

Plot No. B055S06 A & B, 07 & A, MO0757

Between R/A 7& 8, Jebel Ali Free Zone, Dubai, UAE

Ph: 00971 4 8053111 ; Fax No: 00971 4 8053222

ISO9001 Certificate Number 1147

Certificate No

Date :

30-DEC-2021

Delivery No:

SIZE (mm)	Heat No	CHEMICAL COMPOSITION (%)														Tensile Test								Test Methods Used
		Bdls	Bdls Wgt MT	C	Si	Mn	P	S	V	Cu	Ni	Cr	N	Mo	CE	CS AREA	Mass	YS	TS	TS/YS	EL%	Agt%	BD/RBD	
																mm²	kg/m	Mpa	Mpa					
16	A0218			0.19	0.17	0.60	0.025	0.029	0.004	0.150	0.050	0.190	0.007	0.010	0.34	192.87 193.38 193.76	1.514 1.518 1.521	566 570 548	650 663 635	1.15 1.16 1.16	19 20 20	7 8 8	PASSED PASSED PASSED	Tensile Test -BS 2005:4449 -BS EN ISO 15630-1 -BS EN ISO 6892-1 Bend -BS 2005:4449 -BS EN ISO 15630-1 Rebend -BS 2005:4449 -BS EN ISO 15630-1

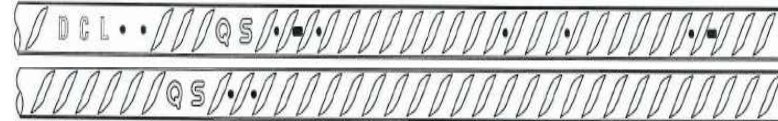
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RM (QST) $CEQ=C + Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu) / 15$

QATAR STEEL REBARS ARE FREE FROM HARMFUL RADIOACTIVE ELEMENTS

BAR PATTERN

D10- D32

D40



(·) mark may be found on the opposite side of the bar at random

We certify that the material supplied complies with the requirements and have been tested at the frequency specified in BS4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS4449:2005 and CS2:2012.


Manager
Technical Department



Validate with the
CARES Cloud App



ISO 14001:2015 REGISTERED FIRM
 CERT. NO.: ME/14/2015



MILL'S TEST CERTIFICATE

Contract No.

Customer

To whom it may concern

Manufacturer/Supplier

QATAR STEEL COMPANY FZE

ISO9001 Certificate Number

1147

QATAR STEEL COMPANY FZE

Plot No. B055S06 A & B, 07 & A, MO0757

Commodity

HIGH YIELD STEEL DEFORMED BAR

Between R/A 7 & 8, Jebel Ali Free Zone, Dubai, UAE

Specification

BS4449:2005 Grade: B500B and CS2:2012 Grade: 500B

Ph: 00971 4 8053111 ; Fax No: 00971 4 8053222

Process Route

RM (QST)

Destination

HONG KONG

Certificate No

Length

12 MTR

Date :

30-DEC-2021

Delivery No:

SIZE (mm)	Heat No	CHEMICAL COMPOSITION (%)														Tensile Test							Test Methods Used	
		Bdls	Bdls Wgt MT	C	Si	Mn	P	S	V	Cu	Ni	Cr	N	Mo	CE	CS AREA	Mass	YS	TS	TS/YS	EL%	Agt%	BD/RBD	Chemical Analysis : ASTM E415
																mm²	kg/m	Mpa	Mpa					
20	B9859			0.20	0.25	0.64	0.026	0.026	0.004	0.100	0.050	0.160	0.007	0.020	0.35	303.31	2.381	566	644	1.14	20	9	PASSED	
																302.29	2.373	547	623	1.14	21	8	PASSED	-BS 2005:4449
																302.55	2.375	556	633	1.14	20	7	PASSED	-BS EN ISO 15630-1
																								-BS EN ISO 6892-1
																								Bend
																								-BS 2005:4449
																								-BS EN ISO 15630-1
																								Rebend
																								-BS 2005:4449
																								-BS EN ISO 15630-1

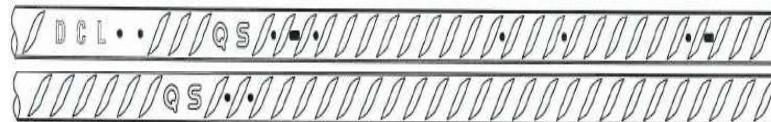
We hereby certify that the material described herein has been made to the applicable specification by the process mentioned below and tested in accordance with the requirements of the contract specification .
 RM (QST) $CEQ = C + Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu) / 15$

QATAR STEEL REBARS ARE FREE FROM HARMFUL RADIOACTIVE ELEMENTS

BAR PATTERN

D10- D32

D40



(·) mark may be found on the opposite side of the bar at random

We certify that the material supplied complies with the requirements and have been tested at the frequency specified in BS4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS4449:2005 and CS2:2012.



Manager
 Technical Department



ISO 14001:2015 REGISTERED FIRM
 CERT. NO.: ME/14/2015



MILL'S TEST CERTIFICATE

Contract No.

Customer

To whom it may concern

Manufacturer/Supplier

QATAR STEEL COMPANY FZE

ISO9001 Certificate Number

1147

QATAR STEEL COMPANY FZE

Plot No. B055S06 A & B, 07 & A, MO0757

Commodity

HIGH YIELD STEEL DEFORMED BAR

Between R/A 7 & 8, Jebel Ali Free Zone, Dubai, UAE

Specification

BS4449:2005 Grade: B500B and CS2:2012 Grade: 500B

Ph: 00971 4 8053111 ; Fax No: 00971 4 8053222

Process Route

RM (QST)

Destination

HONG KONG

Certificate No

Length

12 MTR

Date :

30-DEC-2021

Delivery No:

SIZE (mm)	Heat No	CHEMICAL COMPOSITION (%)														Tensile Test								Test Methods Used
		Bdls	Bdls Wgt MT	C	Si	Mn	P	S	V	Cu	Ni	Cr	N	Mo	CE	CS AREA	Mass	YS	TS	TS/YS	EL%	Agt%	BD/RBD	Chemical Analysis : ASTM E415
																mm²	kg/m	Mpa	Mpa					
25	C9873			0.20	0.25	0.69	0.026	0.029	0.004	0.140	0.050	0.120	0.007	0.010	0.35	474.14 472.10 470.70	3.722 3.706 3.695	568 563 548	669 650 634	1.18 1.15 1.16	21 20 19	8 7 7	PASSED PASSED PASSED	

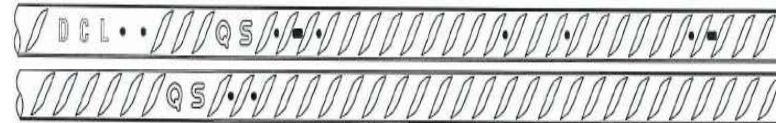
We hereby certify that the material described herein has been made to the applicable specification by the process mentioned below and tested in accordance with the requirements of the contract specification .
RM (QST) $CEQ = C + Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu) / 15$

QATAR STEEL REBARS ARE FREE FROM HARMFUL RADIOACTIVE ELEMENTS

BAR PATTERN

D10- D32

D40



(·) mark may be found on the opposite side of the bar at random

We certify that the material supplied complies with the requirements and have been tested at the frequency specified in BS4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS4449:2005 and CS2:2012.



Manager
Technical Department



Validate with the
 CARES Cloud App



ISO 14001:2015 REGISTERED FIRM
 CERT. NO.: ME/14/2015



MILL'S TEST CERTIFICATE

Contract No.

Customer

To whom it may concern

Manufacturer/Supplier

QATAR STEEL COMPANY FZE

ISO9001 Certificate Number

1147

QATAR STEEL COMPANY FZE

Plot No. B055S06 A & B, 07 & A, MO0757

Commodity

HIGH YIELD STEEL DEFORMED BAR

Between R/A 7& 8, Jebel Ali Free Zone, Dubai, UAE

Specification

BS4449:2005 Grade:B500B and CS2:2012 Grade:500B

Ph: 00971 4 8053111 ; Fax No: 00971 4 8053222

Process Route

RM (QST)

Destination

HONG KONG

Certificate No

Length

12 MTR

Date :

30-DEC-2021

Delivery No:

SIZE (mm)	Heat No	CHEMICAL COMPOSITION (%)														Tensile Test								Test Methods Used
		Bdls	Bdls Wgt MT	C	Si	Mn	P	S	V	Cu	Ni	Cr	N	Mo	CE	CS AREA	Mass	YS	TS	TS/YS	EL%	Agt%	BD/RBD	
																mm²	kg/m	Mpa	Mpa					
32	ALD478			0.22	0.22	0.82	0.018	0.019	0.010	0.090	0.030	0.140	0.009	0.030	0.40	780.51	6.127	596	694	1.16	19	7	PASSED	Tensile Test
																781.40	6.134	589	684	1.16	21	9	PASSED	-BS 2005:4449
																779.24	6.117	570	672	1.18	19	7	PASSED	-BS EN ISO 15630-1
																								-BS EN ISO 6892-1
																								Bend
																								-BS 2005:4449
																								-BS EN ISO 15630-1
																								Rebend
																								-BS 2005:4449
																								-BS EN ISO 15630-1

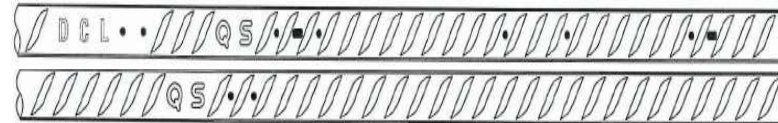
We hereby certify that the material described herein has been made to the applicable specification by the process mentioned below and tested in accordance with the requirements of the contract specification .
RM (QST) $CEQ=C + Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu) / 15$

QATAR STEEL REBARS ARE FREE FROM HARMFUL RADIOACTIVE ELEMENTS

BAR PATTERN

D10- D32

D40



(·) mark may be found on the opposite side of the bar at random

We certify that the material supplied complies with the requirements and have been tested at the frequency specified in BS4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS4449:2005 and CS2:2012.



Manager
Technical Department



Validate with the
 CARES Cloud App



ISO 14001:2015 REGISTERED FIRM
 CERT. NO.: ME/14/2015



MILL'S TEST CERTIFICATE

Contract No.

Customer

To whom it may concern

Manufacturer/Supplier

QATAR STEEL COMPANY FZE

ISO9001 Certificate Number

1147

QATAR STEEL COMPANY FZE

Plot No. B055S06 A & B, 07 & A, MO0757

Commodity

HIGH YIELD STEEL DEFORMED BAR

Between R/A 7 & 8, Jebel Ali Free Zone, Dubai, UAE

Specification

BS4449:2005 Grade: B500B and CS2:2012 Grade: 500B

Ph: 00971 4 8053111 ; Fax No: 00971 4 8053222

Process Route

RM (QST)

Destination

HONG KONG

Certificate No

Length

12 MTR

Date :

30-DEC-2021

Delivery No:

SIZE (mm)	Heat No	CHEMICAL COMPOSITION (%)														Tensile Test								Test Methods Used	
		Bdls	Bdls Wgt MT	C	Si	Mn	P	S	V	Cu	Ni	Cr	N	Mo	CE	CS AREA	Mass	YS	TS	TS/YS	EL%	Agt%	BD/RBD		
																mm²	kg/m	Mpa	Mpa						
40	A0010			0.20	0.19	0.60	0.024	0.026	0.003	0.120	0.050	0.100	0.007	0.010	0.33	1240.89	9.741	594	712	1.20	21	8	PASSED	Tensile Test	
																1228.03	9.640	600	718	1.20	21	9	PASSED	-BS 2005:4449	
																1240.76	9.740	587	705	1.20	21	8	PASSED	-BS EN ISO 15630-1	
																									-BS EN ISO 6892-1
																									Bend
																									-BS 2005:4449
																									-BS EN ISO 15630-1
																									Rebend
																									-BS 2005:4449
																									-BS EN ISO 15630-1

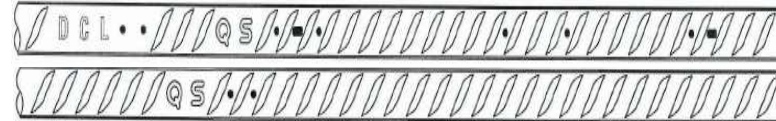
We hereby certify that the material described herein has been made to the applicable specification by the process mentioned below and tested in accordance with the requirements of the contract specification .
RM (QST) $CEQ = C + Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu) / 15$

QATAR STEEL REBARS ARE FREE FROM HARMFUL RADIOACTIVE ELEMENTS

BAR PATTERN

D10- D32

D40



(·) mark may be found on the opposite side of the bar at random

We certify that the material supplied complies with the requirements and have been tested at the frequency specified in BS4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS4449:2005 and CS2:2012.



Manager
Technical Department



Validate with the
 CARES Cloud App



ISO 14001:2015 REGISTERED FIRM
 CERT. NO.: ME/14/2015



DIRECTORATE FOR STANDARDS, METROLOGY AND QUALITY (STAMEQ)

VIETNAM CERTIFICATION CENTRE (QUACERT)



CERTIFICATE

This is to certify that the Quality Management System of

HOA PHAT HAI DUONG STEEL JOINT STOCK COMPANY

Head office: Hiep Thuong Residential Area, Hiep Son Ward, Kinh Mon Town, Hai Duong Province, Vietnam

Hanoi office: No.66, Nguyen Du Street, Nguyen Du Ward, Hai Ba Trung District, Hanoi, Vietnam

has been assessed and found to conform with the requirements of the following standard

TCVN ISO 9001:2015/ISO 9001:2015

Certification Scope: Manufacture and Supply of Steel Billets and Construction Steel Products

Certificate Number: HT 3986/2.20.17

The validity of this Certificate: from 23 November 2020 to 22 November 2023

華美鋼鐵(香港)有限公司
WELMETAL STEEL (HONG KONG) LIMITED
For Submission Use Only



JAS-ANZ

The Director General of STAMEQ

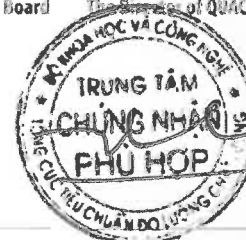
The Chairman of the Certification Board

The Secretary of QUACERT



MSc. Tran Van Vinh

Dr. Pham Hong



MSc. Pham Le Cuong

QUACERT – 8 Hoang Quoc Viet, Cau Giay, Hanoi, Vietnam.

The validity of this certificate can be checked at website: www.quacert.gov.vn and www.jas-anz.org/register



PHIẾU CHỨNG NHẬN CHẤT LƯỢNG MILL TEST CERTIFICATE

0394 - 0621



MHI/ NHÀ HOA PHAT HAI DUONG STEEL JOINT STOCK COMPANY/
SẢN XUẤT CÔNG TY CỔ PHẦN THÉP HÒA PHÁT HẢI DƯƠNG
Hiệp Sơn Ward, Kinh Môn Town, Hai Duong Province, Vietnam.
ADD/ Phường Hiệp Sơn - Thị xã Kinh Môn - Tỉnh Hải Dương - Việt Nam.
ĐỊA CHỈ Tel: 0220 3535250 Fax: 0220 3535251
Website: www.hoaphat.com.vn

CUSTOMER/
KHÁCH HÀNG : TO WHOM IT MAY CONCERN

Address :

PRODUCT NAME/ TÊN SẢN PHẨM: HIGH YIELD STEEL DEFORMED BAR
SIZE / KÍCH THƯỚC : Dia 10mm x 12M
STANDARD/ TIÊU CHUẨN : CS2:2012
GRADE/ MẠC THÉP : 500B
BAR PATTERN CODE : VNM4
BAR PATTERN :

PRODUCTION DATE/ NGÀY SẢN XUẤT : 01 - 02/06/2021
CERTIFICATE DATE/ NGÀY CẤP : 30/06/2021
TOTAL NUMBER OF BUNDLE/ TỔNG SỐ : 295 Bundle/ Bó
TOTAL WT/ GHT/ TỔNG TRỌNG LƯỢNG : 717.759 Ton/ Tấn
CERTIFICATE NUMBER/ CHỨNG CHỈ SỐ : 0394 - 0621
ISO CERTIFICATE NUMBER/GIẤY CHỨNG NHẬN ISO SỐ : HT 3986/2.20.17

Technical Requirement/ Đặc tính kỹ thuật:				Chemical Composition/ Thành phần hóa học:												Mechanical Properties/ Cơ tính				
No/ STT	Heat number/ Mã số	Net/ Gross weight (kg)	Mass (Kg/m)	%C	%Si	%Mn	%S	%P	%Cu	%Ni	%Cr	%Mo	%V	%N	%Ceq	Yield strength (N/mm2)	Tensile strength (N/mm2)	Rm/Re	Elongation Agt (%)	Rebent Test
1	SD345A-11A13872/I	31.563	0.599	0.20	0.34	0.92	0.018	0.026	0.049	0.023	0.058	0.008	0.003	0.007	0.369	588.878 593.660 582.995	655.720 665.744 655.111	1.11 1.12 1.12	8.80 8.72 8.62	OK OK OK
2	SD345A-11A13878/I	2.438	0.598	0.21	0.37	0.93	0.016	0.031	0.050	0.024	0.055	0.011	0.002	0.007	0.380	611.742 625.787 615.573	684.458 694.312 689.418	1.12 1.11 1.12	8.60 8.74 8.64	OK OK OK
3	SD345A-11A13888/I	14.562	0.599	0.20	0.36	0.91	0.017	0.024	0.043	0.022	0.070	0.012	0.002	0.006	0.368	595.064 579.637 592.039	656.062 647.674 657.803	1.10 1.12 1.11	8.70 8.71 8.62	OK OK OK
4	SD345A-11A13889/I	24.326	0.599	0.20	0.36	0.90	0.016	0.024	0.043	0.026	0.102	0.016	0.002	0.006	0.380	599.053 580.361 590.634	666.531 677.120 664.368	1.11 1.11 1.12	8.50 8.61 8.12	OK OK OK
5	SD345A-11A13890/I	7.312	0.607	0.21	0.40	0.89	0.020	0.024	0.052	0.030	0.076	0.014	0.002	0.007	0.384	592.087 580.625 566.821	653.197 642.584 639.972	1.10 1.11 1.13	8.70 8.32 9.21	OK OK OK

* Ceq = C+Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu)/15

* Manufacturing process Route: Blast Furnace - Converter - Continuous casting - Hot rolling

* **Statement:** We certify that the material supplied complies with the requirements of BS 4449:2005 & CS2:2012 and have been tested at the frequency specified in BS 4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS 4449:2005 and CS2:2012.

AS THE MANUFACTURER/ NHÀ SẢN XUẤT



QUYỀN TRƯỞNG PHÒNG QUẢN LÝ CHẤT LƯỢNG

Nguyễn Thái An



PHIẾU CHỨNG NHẬN CHẤT LƯỢNG

MILL TEST CERTIFICATE

0400 - 0621



MILL/ NHÀ SẢN XUẤT : HOA PHAT HAI DUONG STEEL JOINT STOCK COMPANY/ CÔNG TY CỔ PHẦN THÉP HÒA PHÁT HẢI DƯƠNG Hiệp Sơn Ward, Kinh Môn Town, Hai Duong Province, Vietnam. ADD/ ĐỊA CHỈ : Phường Hiệp Sơn - Thị xã Kinh Môn - Tỉnh Hải Dương - Việt Nam. Tel: 0220 3535250 Fax: 0220 3535251 Website: www.hoaphat.com.vn										CUSTOMER/ KHÁCH HÀNG : TO WHOM IT MAY CONCERN Address :										
PRODUCT NAME/ TÊN SẢN PHẨM: HIGH YIELD STEEL DEFORMED BAR SIZE / KÍCH THƯỚC : Dia 12mm x 12M STANDARD/ TIÊU CHUẨN : CS2:2012 GRADE/ MÃC THÉP : 500B BAR PATTERN CODE : VNM4 BAR PATTERN :  I H O A P H A T I 9 I 1 2 I I I										PRODUCTION DATE/ NGÀY SẢN XUẤT : 05 - 06/06/2021 CERTIFICATE DATE/ NGÀY CẤP : 30/06/2021 TOTAL NUMBER OF BUNDLE/ TỔNG SỐ : 468 Bundle/ Bó TOTAL WEIGHT/ TỔNG TRỌNG LƯỢNG : 1.144.005 Ton/ Tấn CERTIFICATE NUMBER/ CHỨNG CHỈ SỐ : 0400 - 0621 ISO CERTIFICATE NUMBER/GIẤY CHỨNG NHẬN ISO SỐ : HT 3986/2.20.17										
Technical Requirement/ Đặc tính kỹ thuật:				Chemical Composition/ Thành phần hóa học:												Mechanical Properties/ Cơ tính				
No/ STT	Heat number/ Mã số	Net/ Gross weight (kg)	Mass (Kg/m)	%C	%Si	%Mn	%S	%P	%Cu	%Ni	%Cr	%Mo	%V	%N	%Ceq	Yield strength (N/mm2)	Tensile strength (N/mm2)	Rm/Re	Elongation Agt (%)	Rebent Test
1	SD345A-11A14042/1	24.371	0.865	0.22	0.31	0.91	0.022	0.033	0.047	0.020	0.059	0.021	0.003	0.007	0.391	577.179 578.65 575.72	655.47 656.48 654.42	1.14 1.13 1.14	8.60 8.60 8.40	OK OK OK
2	SD345A-11A14043/1	17.071	0.868	0.20	0.32	0.91	0.018	0.030	0.046	0.027	0.064	0.016	0.003	0.007	0.373	568.674 579.52 577.48	649.63 655.02 653.91	1.14 1.13 1.13	9.10 8.60 8.30	OK OK OK
3	SD345A-11A14074/1	24.394	0.865	0.20	0.33	0.88	0.029	0.027	0.046	0.024	0.042	0.011	0.003	0.005	0.361	588.660 563.73 574.67	655.54 647.03 648.83	1.11 1.15 1.13	8.50 8.80 8.60	OK OK OK
4	SD345A-11A14075/1	48.864	0.864	0.21	0.32	0.89	0.024	0.027	0.045	0.025	0.051	0.008	0.003	0.005	0.377	576.575 576.85 568.54	649.89 650.78 647.50	1.13 1.13 1.14	8.50 8.50 8.80	OK OK OK
5	SD345A-11A14076/1	41.535	0.865	0.22	0.38	0.91	0.023	0.023	0.055	0.028	0.040	0.012	0.002	0.005	0.361	586.065 588.57 596.26	661.19 663.28 668.15	1.13 1.13 1.12	8.30 8.40 8.20	OK OK OK

* $C_{eq} = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15$

* Manufacturing process Route: Blast Furnace - Converter - Continuous casting - Hot rolling

* **Statement:** We certify that the material supplied complies with the requirements of BS 4449:2005 & CS2:2012 and have been tested at the frequency specified in BS 4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS 4449:2005 and CS2:2012.



QUẢN TRƯỞNG PHÒNG QUẢN LÝ CHẤT LƯỢNG
 Nguyễn Thái An



PHIẾU CHỨNG NHẬN CHẤT LƯỢNG MILL TEST CERTIFICATE

0409 - 0621



MILL/ NHÀ SẢN XUẤT: HOA PHAT HAI DUONG STEEL JOINT STOCK COMPANY/
CÔNG TY CỔ PHẦN THÉP HÒA PHÁT HẢI DƯƠNG
Hiệp Sơn Ward, Kinh Môn Town, Hai Duong Province, Vietnam.
ADD/ Phường Hiệp Sơn - Thị xã Kinh Môn - Tỉnh Hải Dương - Việt Nam.
ĐỊA CHỈ: Tel: 0220 3535250 Fax: 0220 3535251
Website: www.hoaphat.com.vn

CUSTOMER/ KHÁCH HÀNG : TO WHOM IT MAY CONCERN

Address :

PRODUCT NAME/ TEN SẢN PHẨM: HIGH YIELD STEEL DEFORMED BAR
SIZE / KÍCH THƯỚC : Dia 16mm x 12M
STANDARD/ TIÊU CHUẨN : CS2:2012
GRADE/ MÁC THÉP : 500B
BAR PATTERN CODE : VNM4
BAR PATTERN : 16/11/11/11

PRODUCTION DATE/ NGÀY SẢN XUẤT : 02 - 04/06/2021
CERTIFICATE DATE/ NGÀY CẤP : 30/06/2021
TOTAL NUMBER OF BUNDLE/ TÔNG SỐ : 395 Bundle/ Bó
TOTAL WEIGHT/ TÔNG TRỌNG LƯỢNG : 953.210 Ton/ Tấn
CERTIFICATE NUMBER/ CHỨNG CHỈ SỐ : 0409 - 0621
ISO CERTIFICATE NUMBER/GIẤY CHỨNG NHẬN ISO SỐ : HT 3986/2.20.17

Technical Requirement/ Đặc tính kỹ thuật:				Chemical Composition/ Thành phần hóa học:											Mechanical Properties/ Cơ tính					
No/ STT	Heat number/ Mã số	Net/ Gross weight (kg)	Mass (Kg/m)	%C	%Si	%Mn	%S	%P	%Cu	%Ni	%Cr	%Mo	%V	%N	%Ceq	Yield strength (N/mm2)	Tensile strength (N/mm2)	Rm/Rc	Elongation Agt (%)	Rebent Test
1	SD345A-11A13947/I	26.577	1.541	0.20	0.39	0.92	0.029	0.033	0.058	0.024	0.074	0.016	0.003	0.006	0.381	610.800	689.00	1.13	7.10	OK
2	SD345A-11A13948/I	26.569	1.548	0.19	0.37	0.92	0.025	0.033	0.047	0.024	0.074	0.013	0.004	0.007	0.363	611.25	690.57	1.13	7.20	OK
																608.570	688.54	1.13	7.30	OK
																617.300	686.00	1.11	6.50	OK
																630.60	695.90	1.10	6.20	OK
3	SD345A-11A13949/I	38.567	1.538	0.21	0.37	0.89	0.032	0.037	0.046	0.027	0.065	0.009	0.003	0.005	0.373	618.54	688.57	1.11	6.50	OK
																624.300	693.80	1.11	6.80	OK
																625.87	695.24	1.11	6.80	OK
																615.40	685.90	1.11	7.00	OK
4	SD345A-11A13950/I	48.276	1.546	0.20	0.39	0.96	0.025	0.027	0.049	0.021	0.054	0.013	0.003	0.006	0.376	591.900	667.30	1.13	7.20	OK
																593.68	669.58	1.13	7.30	OK
																592.10	660.00	1.11	7.00	OK
																589.100	654.70	1.11	7.10	OK
5	SD345A-11A13953/I	50.616	1.538	0.19	0.35	0.92	0.025	0.024	0.050	0.022	0.052	0.011	0.003	0.007	0.364	591.58	656.57	1.11	7.30	OK
																589.70	663.20	1.12	7.20	OK

* $C_{eq} = C + Mn/6 + (Cr + Mo + V)/5 + (Ni + Cu)/15$

* Manufacturing process Route: Blast Furnace - Converter - Continuous casting - Hot rolling

* **Statement:** We certify that the material supplied complies with the requirements of BS 4449:2005 & CS2:2012 and have been tested at the frequency specified in BS 4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS 4449:2005 and CS2:2012.



QUẢN TRƯỞNG PHÒNG QUẢN LÝ CHẤT LƯỢNG

Nguyễn Thái An



PHIẾU CHỨNG NHẬN CHẤT LƯỢNG MILL TEST CERTIFICATE

0416 - 0621



MILL/ NHÀ SẢN XUẤT HOA PHAT HAI DUONG STEEL JOINT STOCK COMPANY/ CÔNG TY CỔ PHẦN THÉP HÒA PHÁT HẢI DƯƠNG Hiệp Sơn Ward, Kinh Môn Town, Hai Duong Province, Vietnam. ADD/ Phường Hiệp Sơn - Thị xã Kinh Môn - Tỉnh Hải Dương - Việt Nam. ĐỊA CHỈ Tel: 0220 3535250 Fax: 0220 3535251 Website: www.hoaphat.com.vn										CUSTOMER/ KHÁCH HÀNG : TO WHOM IT MAY CONCERN Address :										
PRODUCT NAME/ TÊN SẢN PHẨM: HIGH YIELD STEEL DEFORMED BAR SIZE / KÍCH THƯỚC : Dia 20mm x 12M STANDARD/ TIÊU CHUẨN : CS2:2012 GRADE/ MÁC THÉP : 500B BAR PATTERN CODE : VNM4 BAR PATTERN :  I / H / O / A / P / H / A / T / I 9 / I 2 / O / I / I / I										PRODUCTION DATE/ NGÀY SẢN XUẤT : 12 - 13/06/2021 CERTIFICATE DATE/ NGÀY CẤP : 30/06/2021 TOTAL NUMBER OF BUNDLE/ TÔNG SỎ : 402 Bundle/ Bó TOTAL WEIGHT/ TÔNG TRỌNG LƯỢNG : 968.563 Ton/ Tấn CERTIFICATE NUMBER/ CHỨNG CHỈ SỎ : 0416 - 0621 ISO CERTIFICATE NUMBER/GIẤY CHỨNG NHẬN ISO SỎ : HT 3986/2.20.17										
Technical Requirement/ Đặc tính kỹ thuật:				Chemical Composition/ Thành phần hóa học:												Mechanical Properties/ Cơ tính				
No/ STT	Heat number/ Mã số	Net/ Gross weight (kg)	Mass (Kg/m)	%C	%Si	%Mn	%S	%P	%Cu	%Ni	%Cr	%Mo	%V	%N	%Ceq	Yield strength (N/mm2)	Tensile strength (N/mm2)	Rm/Re	Elongation Agt (%)	Rebut Test
1	SD390B-11A14417/I	43.434	2.414	0.19	0.35	1.42	0.022	0.029	0.039	0.018	0.039	0.008	0.002	0.007	0.437	556.373 557.37 561.64	659.55 658.58 664.40	1.19 1.18 1.18	7.90 7.90 7.80	OK OK OK
2	SD390B-11A14422/I	45.704	2.403	0.21	0.34	1.41	0.024	0.034	0.058	0.029	0.041	0.020	0.003	0.005	0.464	556.981 557.99 559.07	647.01 645.00 640.59	1.16 1.16 1.15	8.80 8.80 8.40	OK OK OK
3	SD390B-11A14424/I	48.249	2.416	0.18	0.36	1.42	0.027	0.025	0.042	0.020	0.036	0.009	0.003	0.005	0.434	564.748 565.74 573.98	666.15 660.20 675.63	1.18 1.17 1.18	7.90 7.90 7.80	OK OK OK
4	SD390B-11A14434/I	7.214	2.415	0.20	0.34	1.44	0.028	0.033	0.044	0.020	0.036	0.011	0.004	0.005	0.451	557.711 556.71 550.11	659.59 658.59 654.91	1.18 1.18 1.19	8.60 8.70 8.20	OK OK OK
5	SD390B-11A14451/I	12.094	2.404	0.21	0.38	1.46	0.021	0.033	0.045	0.025	0.044	0.008	0.002	0.006	0.461	555.543 554.54 563.75	656.21 655.13 662.45	1.18 1.18 1.18	8.60 8.50 7.90	OK OK OK

* Ceq = C+Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu)/15

* Manufacturing process Route: Blast Furnace - Converter - Continuous casting - Hot rolling

* **Statement:** We certify that the material supplied complies with the requirements of BS 4449:2005 & CS2:2012 and have been tested at the frequency specified in BS 4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS 4449:2005 and CS2:2012.

AS THE MANUFACTURER/ NHÀ SẢN XUẤT



QUẢN TRƯỞNG PHÒNG QUẢN LÝ CHẤT LƯỢNG

Nguyễn Thái An



PHIẾU CHỨNG NHẬN CHẤT LƯỢNG

MILL TEST CERTIFICATE

0427 - 0621



MILL/ NHÀ SẢN XUẤT HOA PHAT HAI DUONG STEEL JOINT STOCK COMPANY/ CÔNG TY CỔ PHẦN THÉP HÒA PHÁT HẢI DƯƠNG Hiệp Sơn Ward, Kinh Môn Town, Hải Dương Province, Vietnam. ADD/ ĐỊA CHỈ Phường Hiệp Sơn - Thị xã Kinh Môn - Tỉnh Hải Dương - Việt Nam. Tel: 0220 3535250 Fax: 0220 3535251 Website: www.hoaphat.com.vn	CUSTOMER/ KHÁCH HÀNG : TO WHOM IT MAY CONCERN Address :
PRODUCT NAME/ TÊN SẢN PHẨM: HIGH YIELD STEEL DEFORMED BAR SIZE / KÍCH THƯỚC : Dia 32mm x 12M STANDARD/ TIÊU CHUẨN : CS2:2012 GRADE/ MÁC THÉP : 500B BAR PATTERN CODE : VNM4 BAR PATTERN : /H/O/A/P/H/A/T/ 19/ 13/2/ 1111	PRODUCTION DATE/ NGÀY SẢN XUẤT : 04 - 14/06/2021 CERTIFICATE DATE/ NGÀY CẤP : 30/06/2021 TOTAL NUMBER OF BUNDLE/ TÔNG SÔ : 402 Bundle/ Bó TOTAL WEIGHT/ TÔNG TRỌNG LƯỢNG : 955.054 Ton/ Tấn CERTIFICATE NUMBER/ CHỨNG CHỈ SÔ : 0427 - 0621 ISO CERTIFICATE NUMBER/GIẤY CHỨNG NHẬN ISO SÔ : HT 3986/2.20.17

Technical Requirement/ Đặc tính kỹ thuật:				Chemical Composition/ Thành phần hóa học:												Mechanical Properties/ Cơ tính				
No/ STT	Heat number/ Mã số	Net/ Gross weight (kg)	Mass (Kg/m)	%C	%Si	%Mn	%S	%P	%Cu	%Ni	%Cr	%Mo	%V	%N	%Ceq	Yield strength (N/mm2)	Tensile strength (N/mm2)	Rm/Re	Elongation Agt (%)	Rebent Test
1	SD390B-13B3494/3	45.106	6.183	0.20	0.38	1.48	0.021	0.026	0.051	0.030	0.064	0.010	0.003	0.005	0.465	606.700	706.00	1.16	6.20	OK
2	SD390B-13B3514/3	7.126	6.182	0.19	0.38	1.45	0.022	0.034	0.047	0.026	0.077	0.014	0.003	0.008	0.456	605.700	705.00	1.16	6.20	OK
3	SD390B-21A4145/HPDO	21.430	6.159	0.21	0.34	1.36	0.015	0.029	0.040	0.028	0.050	0.006	0.001	0.005	0.45	599.100	709.30	1.18	7.10	OK
4	SD390B-21A4146/HPDO	30.856	6.154	0.19	0.31	1.34	0.007	0.023	0.030	0.025	0.047	0.003	0.001	0.005	0.43	604.100	697.30	1.15	6.60	OK
5	SD390B-21A4147/HPDO	45.093	6.182	0.19	0.33	1.38	0.011	0.021	0.040	0.025	0.042	0.003	0.001	0.005	0.43	603.100	696.30	1.15	6.20	OK
																605.200	698.40	1.15	6.60	OK
																616.400	711.50	1.15	6.50	OK
																617.400	712.50	1.15	6.70	OK
																618.600	713.60	1.15	6.40	OK
																578.900	679.00	1.17	7.10	OK
																576.500	680.63	1.18	7.30	OK
																578.100	682.23	1.18	7.00	OK
																574.000	673.90	1.17	7.10	OK
																585.800	676.70	1.16	7.30	OK
																586.700	672.80	1.15	7.70	OK

* Ceq = C+Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu)/15

* Manufacturing process Route: Blast Furnace - Converter - Continuous casting - Hot rolling

* **Statement:** We certify that the material supplied complies with the requirements of BS 4449:2005 & CS2:2012 and have been tested at the frequency specified in BS 4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS 4449:2005 and CS2:2012.



QUẢN TRƯỞNG PHÒNG QUẢN LÝ CHẤT LƯỢNG

Nguyễn Thái An



PHIẾU CHỨNG NHẬN CHẤT LƯỢNG

MILL TEST CERTIFICATE

0434 - 0621



MILL/ NHÀ SẢN XUẤT HOA PHAT HAI DUONG STEEL JOINT STOCK COMPANY/ CÔNG TY CỔ PHẦN THÉP HÒA PHÁT HẢI DƯƠNG Hiệp Sơn Ward, Kinh Môn Town, Hai Duong Province, Vietnam. ADD/ Phường Hiệp Sơn - Thị xã Kinh Môn - Tỉnh Hải Dương - Việt Nam. ĐỊA CHỈ Tel: 0220 3535250 Fax: 0220 3535251 Website: www.hoaphat.com.vn									CUSTOMER/ KHÁCH HÀNG : TO WHOM IT MAY CONCERN Address :											
PRODUCT NAME/ TEN SẢN PHẨM: HIGH YIELD STEEL DEFORMED BAR SIZE / KÍCH THƯỚC : Dia 40mm x 12M STANDARD/ TIÊU CHUẨN : CS2:2012 GRADE/ MÁC THÉP : 500B BAR PATTERN CODE : VNM4 BAR PATTERN :  I H O A P H A T I 9 I 1 4 0 I I I I									PRODUCTION DATE/ NGÀY SẢN XUẤT : 08 - 10/06/2021 CERTIFICATE DATE/ NGÀY CẤP : 30/06/2021 TOTAL NUMBER OF BUNDLE/ TỔNG SỐ : 391 Bundle/ Bộ TOTAL WEIGHT/ TỔNG TRỌNG LƯỢNG : 952.869 Ton/ Tấn CERTIFICATE NUMBER/ CHỨNG CHỈ SỐ : 0434 - 0621 ISO CERTIFICATE NUMBER/GIẤY CHỨNG NHẬN ISO SỐ : HT 3986/2.20.17											
Technical Requirement/ Đặc tính kỹ thuật:				Chemical Composition/ Thành phần hóa học:												Mechanical Properties/ Cơ tính				
No/ STT	Heat number/ Mã số	Net/ Gross weight (kg)	Mass (Kg/m)	%C	%Si	%Mn	%S	%P	%Cu	%Ni	%Cr	%Mo	%V	%N	%Ceq	Yield strength (N/mm2)	Tensile strength (N/mm2)	Rm/Re	Elongation Agt (%)	Rebent Test
1	SD390V1-11A13426/2	2.439	9.675	0.21	0.36	1.47	0.026	0.027	0.052	0.022	0.028	0.018	0.017	0.008	0.468	578.700 578.260 579.560	677.30 670.72 672.02	1.17 1.16 1.16	6.60 6.50 6.60	OK OK OK
2	SD390V1-11A14289/3	46.271	9.612	0.20	0.36	1.42	0.029	0.039	0.047	0.030	0.076	0.016	0.019	0.005	0.461	605.800 600.400 597.900	712.60 703.00 701.30	1.18 1.17 1.17	6.20 6.30 6.80	OK OK OK
3	SD390V1-11A14292/3	51.243	9.632	0.18	0.37	1.41	0.026	0.029	0.053	0.028	0.042	0.022	0.018	0.005	0.441	625.000 624.000 618.600	702.10 701.10 717.20	1.12 1.12 1.16	7.00 7.20 6.50	OK OK OK
4	SD390V1-13B3216/3	24.388	9.671	0.21	0.35	1.44	0.018	0.034	0.046	0.023	0.044	0.010	0.017	0.005	0.466	604.200 638.200 605.200	711.50 743.00 712.50	1.18 1.16 1.18	6.40 6.30 6.40	OK OK OK
5	SD390V1-13B3218/3	41.531	9.702	0.21	0.34	1.44	0.018	0.039	0.046	0.024	0.050	0.013	0.017	0.005	0.467	578.800 574.330 592.330	677.30 678.30 674.44	1.17 1.19 1.18	6.20 6.20 6.20	OK OK OK

* Ceq = C+Mn/6 + (Cr+Mo+V)/5 + (Ni+Cu)/15

* Manufacturing process Route: Blast Furnace - Converter - Continuous casting - Hot rolling

* **Statement:** We certify that the material supplied complies with the requirements of BS 4449:2005 & CS2:2012 and have been tested at the frequency specified in BS 4449:2005 and CS2:2012. The results of Surface Geometry Measurement are in compliance with BS 4449:2005 and CS2:2012.



QUẢN TRƯỞNG PHÒNG QUẢN LÝ CHẤT LƯỢNG

Nguyễn Thái An

DIRECTORATE FOR STANDARDS, METROLOGY AND QUALITY (STAMEQ)

VIETNAM CERTIFICATION CENTRE (QUACERT)



CERTIFICATE

This is to certify that the Quality Management System of

HOA PHAT DUNG QUAT STEEL JSC.

Head office: Dung Quat economy park, Binh Dong commune, Binh Son district, Quang Ngai province, Viet Nam
Ha Noi office: No.66 Nguyen Du street, Hai Ba Trung district, Ha Noi, Viet Nam

has been assessed and found to conform with the requirement of the following standard

TCVN ISO 9001 : 2015 / ISO 9001 : 2015

Certification Scope: **Manufacture and supply of steel products**
Certificate Number: **HT 4192/1.21.17**
The validity of this Certificate: **from 16 August 2021 to 15 August 2024**
Original Certification: **17 October 2018**

華美鋼鐵(香港)有限公司
WELMETAL STEEL (HONG KONG) LIMITED
For Submission Use Only



JAS-ANZ

The Director General of STAMEQ

The Chairman of the Certification Board

The Chairman of QUACERT



MSc. Tran Van Vinh

Dr. Pham Hong

MSc. Pham Le Cuong



QUACERT - 8 Hoang Quoc Viet, Cau Giay, Hanoi, Vietnam.

The validity of this certificate can be checked at website www.quacert.gov.vn and www.jas-anz.org/register

VILAS 1190



Technical Requirement/ Đặc tính kỹ thuật					Chemical Composition/ Thành phần hóa học											Mechanical Properties/ Cơ tính					
No/ Str	Heat number/ Mã số	Net/ Gross weight (Kg)	Mass (Kg/m)	Nominal cross-sectional area (mm2)	%C	%Si	%Mn	%S	%P	%Cu	%Ni	%Cr	%Mo	%V	(ppm)N	%Ceq	Yield strength (N/mm2)	Tensile strength (N/mm2)	Rm/Re	Elongation Agt (%)	Rebend Test
1	SD390B-21CS388	3,247	0.865	113.1	0.203	0.331	1.381	0.010	0.018	0.040	0.014	0.021	0.002	15.220	25.200	0.440	560.44	640.54	1.14	11.70	OK
																	547.17	636.88	1.16	11.10	OK
																	553.05	644.99	1.17	10.80	OK

AS THE MANUFACTURER / NHÀ SẢN XUẤT



PR.QLCL

Nguyễn Việt Tuấn

Nguồn Viết Quấn



10.2 VNM5

Nguyễn Viết Fouán

