

MATERIAL TEST CERTIFICATE SEAMLESS TUBE

CERTIFICATE DE RECEPTION - TUBES D'ACIER SANS SOUDURE
NAHMEPRÜFZEUGNIS - NAHTLOSE STAHLROHRE

ArcelorMittal South Africa Limited
Tubular Products

273 Genl. Hertzog Rd
Peacehaven Vereeniging 1939
PO Box 48 Vereeniging 1930
South Africa

Telephone +27 (0)16 450 4220
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EN10204: 2004 TYPE 3.2
Licensed under
API SL
API 5CT
ISO 9001:2015
PED1014/08/ES

Steelmaking Facility
ArcelorMittal South Africa Ltd
Mario Milani Road, Peacehaven
Vereeniging 1939
PO Box 48, Vereeniging 1930
South Africa



Customer (A06): Client: Kunde:		Customer Order/Contract No. (A07):	SUS6 173767
Order No (A08): No. de commande Mitral: Mittal-Auftrags-Nr:	4000028415	Material No: No de matériau: Werkstoff-Nr:	1000042311
Certificate Reference No. (A03): No de certificat: Zeugnis-Nr:	040062761848	Cast/Heat No (B07): Coulée No: Schmelzen-Nr:	28B9002
Product (B01): Produit: Produkt:	FULLY KILLED HOT FINISHED CARBON STEEL SEAMLESS TUBES		
Specification (B02): Spécification: Angabe:	API5L:18 B/X42 PSL1 ISO3183:19 L245/L290 ASTM A106B/C:18 A53B/A530:18 ASME SA106B/C//SA53B/SA530:17		
Product Marking (B06): Langage de produit: Produktkennzeichnung:	ARCELORMITTAL SA API Spec 5L-0319 MONOGRAM 05-21 ISO3183 L245/L290 PSL1 ASTM/ASME A/SA106B/C A53B 5.563 0.258 40 027 B/X42 PSL1 SMLS CAST NO: 28B9002 PROD/ONO: T0542841510 TESTED 3000 psi 585.3 lbs NDE MADE IN RSA		

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General Information:

Information Générale:
Allgemeine Information:

Quantity (B08) Quantité Menge	Mass (B12) Poids Gewicht	Dimensions (B09-B11) Dimensions / Maße			Total Length Longueur Länge
		Tube OD Diamètre Durchschnitt	Thickness Épaisseur Stärke	Length Longueur Länge	
87(ea)	50,930.625(lb)	5.563(")	0.258(")	40.027(ft)	3,482.349(ft)

Steel making process (C70) Procédé de fabrication de l'acier Stahlerschmelzungsverfahren	Final Rolling Operation (B04) As Rolled Fin de laminage Walzende
Electric Arc	Final hot rolling finished above 1580°F and cooled in still air

Chemical Composition: (C71-C92)

R22-(V+Nb+Ti)

R24-(Nb+V)

Analyse sur coulée - Schmelzanalyse

Element (%)	C	Si	Mn	S	P	Cr	Ni	Mo	Cu	V	Al	Ti	Sn	Ca	N	B	Nb	CE	R22	R24
Minimum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maximum	0.200		1.30	0.030	0.030	0.40	0.40	0.150	0.400									0.43		
Heat	0.140	0.36	1.27	0.008	0.020	0.11	0.05	0.017	0.090	0.005	0.033	0.019	0.006	0.0044	0.0066	0.0004	0.0320	0.39		
Product	0.13	0.34	1.24	0.009	0.016	0.12	0.05	0.016	0.100	0.003	0.029	0.019	0.005	0.0014	0.0141	0.0005	0.0340	0.37	0.056	0.037
Product (ADD)	0.13	0.34	1.25	0.009	0.016	0.12	0.05	0.016	0.100	0.003	0.030	0.019	0.006	0.0015	0.0143	0.0005	0.0340	0.38	0.056	0.037

Quality Assurance Engineer, Certification: M Makgoba

Date of Release: 2021.05.03

Certified by:

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Order No (A08):	4000028415	No de commande client: Kundenauftrags-Nr.	
Certificate Reference No (A03):	040062761848	Material No:	1000042311
Product (B01):	FULLY KILLED HOT FINISHED CARBON STEEL SEAMLESS TUBES	No de matériau: Werkstoff-Nr.	
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Mechanical Properties at Room Temperature 72°F

Propriétés Mécaniques à température ambiante 72°F
Mechanische Eigenschaften bei Raumtemperatur 72°F

*Elongation to BS EN ISO 2566 table 7: 5.65 √S₀

Elongation au BS EN ISO 2566 tableau 7: 5.65 √S₀
Verlängerung zu BS EN ISO 2566 Tabelle 7: 5.65 √S₀

Orientation and width of tensile piece C02: Longitudinal, Strip, 1 inch
Orientation de la poutre de tension: Largeur de l'échantillon
Richtung und Breite der Zugprobe

Specification Spécification Angabe	UTS (Rm) C12 Force de tension Zugfestigkeit	Yield (Rs) C11 Limit élastique Fließgrenze	% EL C13 Allong Dehnu	*% EL Allong: Dehnu
Limits Limite Grenze	psi	psi	2 Inch	5.65√S ₀
Minimum	70 000	42 100	30.00	
Maximum				
Sample (1)	86 008	70 924	34.00	
Sample (2)	87 313	71 649	37.00	

TECHNOLOGICAL TESTS ÉPREUVES TECHNOLOGIQUES TECHNISCHE PRÜFUNGEN	
Flattening Test (D51-D99) Essai d'aplatissement Ringfallversuch	PASSED
Hydrostatic (D02-D50) Hydrostatique Hydrostatisch	20700 kPa (3000 psi) - 5 sec
Electromagnetic Insp (D02-D50) Inspection électromagnétique Elektromagnetische Prüfung	PASS - ASTM E570 - 12.5% NOTCH

Orientation of impact test piece (C41):
Orientation de la poutre de
Richtung des Probestücks

TECHNOLOGICAL TESTS ÉPREUVES TECHNOLOGIQUES TECHNISCHE PRÜFUNGEN	
Ultrasonic inspection (D02-D50) Inspection ultrasoniq Ultraschallprüfung	UT not required
Hardness (HV 221bs) C31 Dureté Härte	186, 190, 194

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Remarks (Z01):

Remarque:
Bemerkung:

Material in accordance with NACE MR0175:2015/ISO15156-2:2015/ISO 17945:2015 and MR0103:2015. Dimensions to ASME B36.10-2017. End finish according to ASME B16.25.17. Result values reported were converted from standard SI test results.

Material conforms to the hot yield strength requirements as per ASME, Sect II, Part D, Table Y-1, and the general requirements of ASME, Sect II, Part A, Ed 2017. Material conforms to AD 2000-Merkblatt W4.

Material conforms to the visual inspection and dimensional tolerance requirements of the specification. A suitable fine grain practice is followed in manufacturing. Residual magnetism measure before shipment was less than 30Gs.

La Société ArcelorMittal South Africa garantit que les produits objet du présent certificat, respectent en leur totalité les prescriptions de l'Article 15 de l'Arrêté Ministériel du 24 mars 1978 modifié.

C<=0.25%, P<=0.05%, R<=700N/mm2, E<=0.9xR
A% (Lo=5.65VSo) min.16% en long; R(A-2)>=10500
A% (Lo=5.65VSo) min.16% en transv; RxA>=10500

ArcelorMittal SA Tubular Products operates a QA System meeting the requirements of PED 2014/68/EU, Annex I, Par 4.3 and AD 2000-Merkblatt W0, certified by TÜV Rheinland Industrie Service GmbH. Certificate No. 01 202 ZA/Q-02 0004.

Non-harmonized materials require Particular Material Appraisal. The impact strength is guaranteed to exceed 27J at 0°C (transverse).

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