

**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  
Fax +27 (0)16 423 4906

**MATERIAL TEST CERTIFICATE SEAMLESS TUBE**

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

EN10204:2004 TYPE 3.2  
Licensed under

API 5L  
API 5CT  
ISO 9001:2015  
PED2014/08/01

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



Customer (A06): <i>Client:</i> <i>Kunde:</i>		Customer Order/Contract No (A07):	<b>SUS2 172675</b>
Order No (A08):	<b>4000028088</b>	Material No:	<b>1000042402</b>
Certificate Reference No (A03):	<b>040062755099</b>	Cast/Heat No (B07):	<b>28B8287</b>
Product (B01):	<b>FULLY KILLED HOT FINISHED CARBON STEEL SEAMLESS TUBES</b>		
Specification (B02):	<b>API5L:18 B/X42 PSL1 ISO3183:19 L245/L290 ASTM A106B/C:18 A53B/A530:18 ASME SA106B/C//SA53B/SA530:17</b>		
Product Marking (B06):	<b>ARCELORMITTAL SA API Spec 5L-0319 MONOGRAM 02-21-ISO3183 L245/L290 PSL1 ASTM/ASME A/SA106B/C.A53B 2.375 0.154 40.027 B/X42 PSL1 SMLS CAST NO: 28B8287 PROD/ONO: T0142808810 NDE TESTED 3000 psi MADE IN RSA</b>		

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**General Information:**

Information Générale:  
Allgemeine Information:

Quantity (B08) <i>Quantité</i> <i>Menge</i>	Mass (B12) <i>Poids</i> <i>Gewicht</i>	Dimensions (B09-B11) <i>Dimensions / Maße</i>			Total Length <i>Longueur</i> <i>Länge</i>
		Tube OD <i>Diamètre</i> <i>Durchschnitt</i>	Thickness <i>Épaisseur</i> <i>Stärke</i>	Length <i>Longueur</i> <i>Länge</i>	
334(ea)	48,841.193(lb)	2.375(")	0.154(")	40.027(ft)	13,369.018(ft)

Steel making process (C70) <i>Procédé de fabrication de l'acier</i> <i>Stahlschmelzungsverfahren</i>	Final Rolling Operation (B04) <i>As Rolled</i> <i>Fin de laminage</i> <i>Walzend</i>
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)

Analysesur coulée Schmelzenanalyse

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	0.155	0.29	1.22	0.007	0.009	0.15	0.08	0.056	0.090	0.006	0.037	0.014	0.005	0.0025	0.0103	0.0003	0.0290	0.41		
Product	0.16	0.29	1.25	0.010	0.010	0.16	0.08	0.056	0.090	0.005	0.026	0.014	0.004	0.0020	0.0240	0.0004	0.0280	0.42	0.047	0.033
Product (ADD)	0.17	0.28	1.24	0.010	0.011	0.16	0.08	0.056	0.090	0.005	0.024	0.014	0.005	0.0022	0.0085	0.0003	0.0280	0.43	0.047	0.033

QA Engineer, Certification: S Wicks

Date of Release: 2021.02.16

Certified by:

We hereby certify that the material was manufactured, tested and inspected to and fully comply with the requirements of referenced specifications. No changes, amendments or additions may be made to this document. Any changes which are effected shall invalidate this certificate.  
Nous certifions que le matériel a été fabriqué, testé et inspecté et se conforme pleinement aux exigences de spécifications référencées. Il est interdit de modifier ou de corriger ce document ou d'y ajouter quoi que ce soit. Tout changement invalide le présent certificat.  
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Customer (A06): <i>Client:</i> <i>Kunde:</i>		Customer Order/Contract No (A07):	SUS2 172675
Order No (A08):	4000028088	Material No:	1000042402
Certificate Reference No (A03):	040062755099	Cast/Heat No (B07):	28B8287
Product (B01):	FULLY KILLED HOT FINISHED CARBON STEEL SEAMLESS TUBES		
Specification (B02):	API5L:18 B/X42 PSL1 ISO3183:19 L245/L290 ASTM A106B/C:18 A53B/A530:18 ASME SA106B/C//SA53B/SA530:17		
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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 √S<sub>0</sub>**

Elongation au BS EN ISO 2566 tableau 7: 5.65 √S<sub>0</sub>  
Verlängerung zu BS EN ISO 2566 Tabelle 7: 5.65 √S<sub>0</sub>

**Orientation and width of tensile piece C02: Longitudinal, Strip, 0.782 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 <sub>0</sub>
Minimum	70 000	42 100	30.00	
Maximum	-	-	-	
Sample (1)	85 717	65 702	32.00	30.00
Sample (2)	87 893	67 298	34.00	32.00

**Orientation of impact test piece (C41):**

*Orientation de la poutre de  
Richtung des Probestücks*

TECHNOLOGICAL TESTS EPREUVES TECHNOLOGIQUES TECHNISCHE PRÜFUNGEN	
Electromagnetic Insp (D02-D50) Inspection électromagnétique Elektromagnetische Prüfung	PASS - ASTM E570 - 12.5% NOTCH
Ultrasonic inspection (D02-D50) Inspection ultrasonique Ultraschallprüfung	UT not required
Hardness (HV 22lbs) C31 Dureté Härte	184 187 188

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Order No (A08): <i>No. de commande Mittal:</i> <i>Mittal-Auftrags-Nr:</i>	4000028088	Material No: <i>No de matériau:</i> <i>Werkstoff-Nr:</i>	1000042402
Certificate Reference No (A03): <i>No de certificat:</i> <i>Zeugnis-Nr:</i>	040062755099	Cast/Heat No (B07): <i>Coulée No:</i> <i>Schmelzen-Nr:</i>	28B8287
Product (B01): <i>Produit:</i> <i>Produkt:</i>	FULLY KILLED HOT FINISHED; CARBON STEEL SEAMLESS TUBES		
Specification (B02): <i>Spécification:</i> <i>Angabe:</i>	API 5L: 18 B/X42 PSL1 ISO 3183:19 L245/L290 ASTM A106B/C: 18 A53B/A530: 18 ASME SA106B/C//SA53B/SA530: 17		
Product Marking (B06): <i>L'araçage de produit:</i> <i>Produktkennzeichnung:</i>	ARCELORMITTAL SA API Spec 5L-0319 MONOGRAM 02-21 ISO 3183 L245/L290 PSL1 ASTM/ASME A/SA106B/C A53B 2.375 0.154 40.027 B/X42 PSL1 SMLS CAST NO: 28B8287 PROD/ONO: T0142808810 NDE TESTED 3000 psi MADE IN RSA		

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**Remarks (Z01):**

*Remarque:*  
*Bemerkung:*

Material in accordance with NACE MR0175:2015/ISO 15156-2:2015/ISO 17945:2015 and MR0103:2015. Dimensions to ASME B36.10-2017. End finish according to ASME B16.25:17  
The material will conform 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.  
All the material conform to the visual inspection and dimensional tolerance requirements of the specification.  
A suitable fine grain practice is followed in manufacturing.  
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'Arrête Ministériel du 24 mars 1978 modifié.  
C<=0.25%, P<=0.05%, R<=700N/mm<sup>2</sup>, 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).

Result values reported were converted from standard SI test results.

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