

**ArcelorMittal South Africa Limited
Tubular Products**

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MATERIAL TEST CERTIFICATE

EN10204: 2004 Type 3.1
Licensed under

API 5L
API 5CT
ISO9001:2015
PED2014/08/EU

**Steelmaking Facility
ArcelorMittal South Africa Ltd**

Isacor Road
Newcastle 2940
PO Box, Newcastle 2940
South Africa



Customer (A06):		Contract No./Customer Order (A07):	SUS2 180078
Order No (A08):	4000029819	Material No:	1000042256
Certificate Reference No (A03):	040062832995	Cast/Heat No (B07):	2300997
Product (B01):	FULLY KILLED HOT FINISHED CARBON STEEL SEAMLESS TUBES		
Specification (B02):	API5L: 18 B/X42 PSL1 ISO3183:19 L245/L290 ASTM A106B/C:19 A53B:22 A530:18 ASME SA106B/C//SA530:21		
Product Marking (B05):	ARCELORMITTAL SA API Spec 5L-0319 MONOGRAM 03-23 ISO3183 L245/L290 PSL1 ASTM/ASME A/SA106B/C A/SA53B 4.000 0.226 20.014 B/X42 PSL1 SMLS CAST NO: 2300997 PROD/ONO: T0142981910 NDE TESTED 3000 psi MADE IN RSA		

General Information:

Quantity (B08)	Mass (B12)	Dimensions (B09-B11)			Total Length
		Tube OD	Thickness	Length	
102(ea)	18,612.424(lb)	4.000(")	0.226(")	20.014(ft)	2,041.428(ft)

Steel making process (C70)	Final Rolling Operation (B04)
Basic Oxygen Furnace	As Rolled
	Final hot rolling finished above 1580°F and cooled in still air

Chemical Composition: (C71-C92)

R05-(Cr+Ni+Mo+Cu+V)

R22-(V+Nb+Ti)

R24-(Nb+V)

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	0.100	0.25	1.24	0.005	0.010	0.02	0.02	0.005	0.025	0.034	0.033	0.001	0.003	0.0012	0.0083	0.0006	0.0130	0.32		
Product	0.11	0.23	1.30	0.004	0.012	0.03	0.02	0.005	0.010	0.035	0.032	0.001	0.001	0.0019	0.0078	0.0005	0.0100	0.35	0.045	0.045
Product (ADD)	0.11	0.23	1.30	0.005	0.013	0.03	0.02	0.005	0.010	0.035	0.030	0.001	0.001	0.0018	0.0090	0.0005	0.0100	0.35	0.045	0.045

Mechanical Properties:

Orientation and type of tensile test (C02): Longitudinal, Strip, 1 Inch

Orientation of impact test piece (C41):

Specification Limits	UTS (Rm) C12 psi	Yield (0.2%) C1 psi	%EL C13 2 inch
Minimum	70 000	42 100	30.0
Maximum	-	-	-
(1) Actual	76 725	59 466	35.0
(2) Actual	78 611	61 351	37.0

Category	OTHER TESTS Results
Flattening (D51-D99)	PASSED
Hydrostatic (D02-D50)	20700 kPa (3000 psi) -5 sec

Category	OTHER TESTS Results
NDI: EMI (D02-D50)	PASS - ASTM E570 - 12.5% NOTCH
NDI: UT (D02-D50)	UT not required
HV 22 lbs C31	165 167 168

Remarks (Z01):

Material in accordance with NACE MR0175:15/ISO15156-2:15, MR0103:15. Dimensions to ASME B36.10:15. End finish to ASME B16.25:17. Material guaranteed to conform to the yield strength requirements as per ASME, Sect II, Pt D, Table Y-1, 2021. Material conforms to the visual and dimensional requirements and is made to a suitable fine grain practice. Product is mercury free, and no weld repair was done. Residual magnetism <30Gs at time of measure. 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.

Result values reported were converted from standard SI test results.

Quality Assurance Engineer, Certification: **M Makgoba**

Date of Release: **2023.03.28**

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.