

**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):	<b>SUS4 180836</b>
Order No (A08):	<b>4000030101</b>	Material No:	<b>1000042312</b>
Certificate Reference No (A03):	<b>040062837480</b>	Cast/Heat No (B07):	<b>2302517</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:19 A53B:22 A530:18 ASME SA106B/C//SA530:21</b>		
Product Marking (B06):	<b>ARCELORMITTAL SA API Spec 5L-0319 MONOGRAM 05-23 ISO3183 L245/L290 PSL1 ASTM/ASME A/SA106B/C A/SA53B 5.563 0.375 20.014 B/X42 PSL1 SMLS CAST NO: 2302517 PROD/ONO: T0343010110 TESTED 3000 psi 416.5 lbs NDE MADE IN RSA</b>		

**General Information:**

Quantity (B08)	Mass (B12)	Dimensions (B09-B11)			Total Length
		Tube OD	Thickness	Length	
110(ea)	45,809.383(lb)	5.563(")	0.375(")	20.014(ft)	2,201.540(ft)

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

**Chemical Composition: (C71-C92)** R05-(Cr+Ni+Mo+Cu+V)

Element(%)	R05-(Cr+Ni+Mo+Cu+V)					R22-(V+Nb+Ti)					R24-(Nb+V)									
	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	0.24	1.18	0.004	0.008	0.02	0.01	0.001	0.014	0.042	0.026	0.002	0.002	0.0016	0.0116	0.0006	0.0010	0.31		
Product	0.09	0.24	1.24	0.005	0.007	0.02	0.02	0.004	0.010	0.043	0.026	0.000	0.001	0.0012	0.0065	0.0003	0.0000	0.31	0.043	0.043
Product (ADD)	0.09	0.24	1.22	0.004	0.007	0.02	0.02	0.004	0.010	0.042	0.026	0.000	0.001	0.0011	0.0116	0.0003	0.0000	0.31	0.042	0.042

**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	71 214	47 427	41.0
(2) Actual	73 969	49 168	44.0

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	157 161 162

**Remarks (Z01):**

Material in accordance with NACE MR0175/ISO15156-2:21, MR0103:15. Dimensions to ASME B36.10:22. 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: 2023.05.18

Certified by: