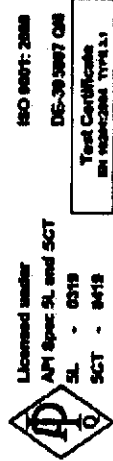


**MATERIAL TEST CERTIFICATE
SEAMLESS TUBE**

ArcelorMittal South Africa Limited
Tubular Products
273 Genl. Hertzog Rd,
Peacehaven Vereeniging 1939
P O Box 48 Vereeniging 1930
South Africa

Telephone +27 (0)16 450 4220
Fax +27 (0)16 423 4906



ISO 9001: 2008
DE-39 3887 04
Test Certificate
EN 10204-2004 TYPE 1.1

ArcelorMittal

Customer: Texas Pipe & Supply Company, LTD
Order No: 4000023173
Certificate Reference No: 040062124908
Product: FULLY KILLED HOT FINISHED CARBON STEEL SEAMLESS TUBES
Specification: ISO3183/2012/API 5L-2012 L245/L290/BX42 FSL1 ASTM A53B.12 A106B/C.15 AS30.12 ASME SA53B.15 SA106B/C.15 SA530.15
Product Marking: ARCELOMITTAL SA ESO3183/Spec 5L-4319 MONOGRAM 04-17 ASTM/ASME A/SA106B/C A53B 4.500 0.337 40.000 L245/B L290/X42 FSL1 SMLS TESTED 3000 psi CAST NO: 1701717 PRODO NO: T0242317310 MADE IN SOUTH AFRICA NDE

Customer Order/Contract No: SUS3 1553-62
Material No: 1000038205
Cast/Heat No: 1701717

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General Information

Quantity	Mass	Dimensions		Total Length	Steel making process	Final Rolling Operation
		Tube OD	Thickness			
184	110,461.571(lb)	4.500" ()	0.337" ()	40.000 (ft)	Electric Arc	As Rolled Final hot rolling finished above 1580°F and cooled in still air

Chemical Composition

Element(%)	R22-(V+Nb+Ti)											R24-(Nb+V)									
	C	Si	Mn	S	P	Cr	Ni	Mo	Cu	V	Al	Ti	Sr	Ca	N	B	Nb	CE	R22	R24	
Minimum	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Maximum	0.200	-	1.30	0.030	0.030	0.50	0.50	0.150	0.500	-	-	-	-	-	-	-	-	0.41	0.15	0.060	-
Heat	0.186	0.27	0.87	0.004	0.014	0.03	0.02	0.001	0.005	0.002	0.031	0.000	0.001	0.0020	0.0040	0.0001	0.0010	0.34	0.00	0.003	-
Product	0.1860	0.2650	0.8660	0.0040	0.0140	0.0290	0.0150	0.0010	0.0050	0.0020	0.0310	-	0.0010	0.0020	0.0040	0.0001	0.0010	0.3381	0.0030	0.0030	-
Product (ADD)	0.1860	0.2650	0.8660	0.0040	0.0140	0.0290	0.0150	0.0010	0.0050	0.0020	0.0310	-	0.0010	0.0020	0.0040	0.0001	0.0010	0.3381	0.0030	0.0030	-

Mechanical Properties

Specification Limits	Yield (0.5%)		UTS (Rm)		Yield (0.5%)		% EL		OTHER TESTS
	MPa	psi	MPa	psi	MPa	psi	% EL	Result	
Minimum	70000	42000	52000	75000	30.0	2	2	3000 psi for 5 Sec	
Maximum	-	-	-	-	-	-	-	PASS - ASTM E570 - 12.5% NOTCH	
(1) Actual	70343	53083	53083	70343	40.0	40.0	40.0	UT not required	
(2) Actual	70778	53519	53519	70778	43.0	43.0	43.0	151 151 153	
(3) Actual	-	-	-	-	-	-	-	-	
(4) Actual	-	-	-	-	-	-	-	-	

REMARKS:

Material in accordance with NACE MR0175:2015/ISO15156-2:2015. MR0103:2015. Dimensions to ASME B36.10M-2015. The material conform to the hot yield strength requirements as per ASME, Sect II, Pt D, Table Y-1, 2015. All the material conform to the visual and dimensional requirements and is made to a suitable fine grain practice.

Quality Assurance Manager: PJ Venier

Date of Release: 2017.04.04

Certified by: *[Signature]*

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.