



ARCELORMITTAL TUBULAR PRODUCTS SHELBY LLC
 132 WEST MAIN STREET
 SHELBY, OH 44875-1471
 Telephone: 419-347-2424 Fax: 419-342-1437

R 722996

MATERIAL TEST REPORT

ISO 9001:2015 IATF 16949:2016

CUSTOMER:		SPECIFICATIONS(S): ASTM A513 2019		CUSTOMER ORDER NO.: P930430-423		SHELBY ORDER NO.: 548988 VR		PAGE 01 OF 01												
PRINT NO.:		CUSTOMER PART NO.: 112332		NDT PER ASTM E570		MELT SOURCE AM CLEVELAND		STEEL BAR/STRIP MFG PROCESS CONTINUOUS/STRAND CAST												
GRADE 1026	SIZE (O.D. X I.D. X WALL) 3.500 X 2.250 X .625	QUANTITY 13436 LB	30 PC	SHIPPED DATE: 07/05/2019	TODAY'S DATE: 07/05/2019	S# 00438475														
AM-SHELBY ITEM NO: 50002422		PRODUCT DESCRIPTION: EW DOM STRESS RELIEVE ANNEAL																		
CHEMICAL COMPOSITION (% WEIGHT)																				
Heat No.	Sample	C	Mn	P	S	Si	Ni	Cr	Mo	Cu	V	Al	Sn	Ca	O	N	Ti	B	Cb	
9518882	Heat	0.26	0.65	0.008	0.004	0.02	0.01	0.04		0.04	0.001	0.044	0.006	0.0038		0.0042	0.002	0.0001		
MECHANICAL PROPERTIES										D.I.		Grain Size								
Tensile Properties										Hardness										
Heat No.	Bundle No.	Yield Strength	Units	Method	Yield Strength	Units	Method	Tensile Strength	Units	%Elongation	% Reduction	HBW	HRBW	HRC						
9518882	T7859895	67800	PSI	0.20%OFF				100300	PSI	20			95							
Charpy Impact Properties										Energy Units										
Size	Orientation (Test direction)	Temp.	Energy 1st		Energy 2nd		Energy 3rd		Energy Avg.											
METALLURGICAL PROPERTIES																				
Jominy Hardenability (EXPRESSED IN 16THS)										Magnaflux										
Heat No.	1	2	3	4	5	6	7	8	9	10	12	14	16	18	20	24	28	32	Freq	Sev.
Test position	AT		AH		BT		BH		CT		CH		DT		DH					
Hot Reduction Ratio	12.9:1																			
OTHER INSPECTION Melted and Manufactured in USA 100% NDT TESTED NON-DESTRUCTIVE TESTED EN 10204 3.1										THIS TEST REPORT NOTARIZED WHEN REQUIRED SWORN AND SUBSCRIBED BEFORE ME THIS DAY OF										
										NOTARY PUBLIC <i>Frank Simeone</i> Frank Simeone, Chief Metallurgist Frank.Simeone@Arcelormittal.com										
MATERIAL PRODUCED TO THE SPECIFICATION(S) SHOWN ABOVE. NO ADDITIONAL SPECIFICATION(S) IS IMPLIED OR WARRANTED. THIS TEST REPORT SHALL NOT BE ALTERED OR REPRODUCED EXCEPT IN FULL. PRODUCTS DO NOT CONTAIN MERCURY OR COME IN CONTACT WITH MERCURY BEARING INSTRUMENTS OR PROCESSING CHEMICALS. MATERIAL HAS NO REPAIRS BY WELDING.																				

INS March 19, 2020

P.O. # 5368

Part # D3-702201

Description: CPA MIXER PROTOTYPE
3 NPS SLEEVE FOUR