



AXIS PIPE AND TUBE, LLC.  
1451 Louis E. Mikulin Rd.  
Bryan TX 77807  
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Customer:	Sales Order:
	0030079620
	PO:
	5053880
Certificate No.:	1600049361-5
Product Description:	ASTM A53 B 12.750X0.375 21.00 PE LAC M
Specification:	Grades ASTM A53/A53M-24 Grade B

Heat Number.		Lot Number		Mat Number		Steel Making / Coil Rolling														
A404432		LT24128001		324319		Steel Dynamics Columbus, LLC , Columbus - MS - US / Steel Dynamics Columbus, LLC , Colum														
Mechanical Properties																				
Tensile Test - Strip Specimen Gauge Length 2"								CVN - Impact Testing												
Loc. / Orien	Size	0.5%EUL Y.S. (psi)	U.T.S. Body (psi)	U.T.S. Weld (psi)	Y/T Ratio	E.L. (%)	Hardness (HRB)	Body (ft-lbf)				Shear Area (%)				Weld (ft-lbf)				5
								1	2	3	Avg	1	2	3	Avg	1	2	3	Avg	
T180°	1 1/2"	60000	77200	82300	0.78	39.4	81													
								Lateral Expansion (in)								Lateral Expansion (in)				

Analysis	Chemical Composition (Max %)												
(H/P)	C	Si	Mn	P	S	Ni	Cr	Mo	Cu	V	Al	Nb	Ti
H	0.22	0.020	0.48	0.009	0.004	0.05	0.05	0.020	0.09	0.001	0.022	0.001	0.0
P	0.19	0.019	0.45	0.008	0.003	0.04	0.05	0.010	0.08	0.001	0.017	0.000	0.0
P	0.18	0.020	0.46	0.006	0.002	0.04	0.05	0.010	0.08	0.001	0.021	0.000	0.0

#### Following Controls / Tests have been satisfactorily performed:

- 1.- Hydrostatic Testing: 1,240.00 psi Pressure for 5.00 seconds
- 2: Ultrasonic Tested to N10 - passed
- 3: Seam Annealed min 1,800 F
- 4: Flattening Test Passed

#### Remarks:

- 1: This material meets: Grades AS
- 2: This product meets the requiren
- 3: Made and Melted in USA
- 4: This material was manufactured
- 5: Date of Manufacture 06/2024
- 6: This product is silicon and/or alu
- 7: Certificate meets the requiremei
- 8: This material meets: NSF/ANSI/

#### Acronyms:

L = Longitudinal  
Y.S. = Yield Strength  
E.L. = Elongation  
P = Product Analysis  
UB = Un-Broken  
T = Transverse  
U.T.S. = Ultimate Tensile Strength  
H = Heat Analysis  
A.C. = Acceptance Criteria  
N/A = Not Applicable

We hereby certify that the materia  
the above specification and also w