

HT# BSM-0328; 24 .500W API5L B/X42/ASTM ASME A/SA



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Mill Test Certificate

Product: Seamless Carbon Steel Pipe Product Heat Number: BSM-0328 Product Size: NPS 24 XS Production Date: May 15, 2012
 Production Method: Hot Expansion Product Heat Treatment: As-rolled
 Product Standards: ASTM/ASME A/SA106-2011 Grade B/C, A/SA53-2010 Grade B Type S, NACE MR0175-2009
 Product Markings: .BRI-STEEL MF6 NPS 24 XS ASTM/ASME A/SA106 GR B/C A/SA53 GR B HEAT BSM-0328 (PIPE # LENGTH MASS) 125.5lb/ft NOE 970PSI NACE MR0175 2012/05 MADE IN CANADA.

Product Details							Non-Destructive Testing								
Heat	Test Type	NPS	SCH	Pieces	Length	Mass lb/ft	Geiger $\mu R/hr$	Res.Mag. Gauss	Visual Insp.	OD	UT WT	UT ASTM E213	ET ASTM E309	HydroTest 970 psi/5s	End Condition
BSM-0328	Heat	24	XS	10	DRL	125.50	<5	<20	Pass	Pass	Pass	—	Pass	Pass	37.5° Bevel

		Chemical Analysis (wt%)																
Heat	Test Type	Steelmaking Method	C	Mn	P	S	Si	Cr	Cu	Mo	Ni	V	Ti	Nb	B	CE (IIV)	CE (CSA)	
		Blast Furnace; EAF; Ladle Refining; Vacuum Degas																
BSM-0328	Heat		0.21	0.88	0.006	0.017	0.24	0.02	0.08	0.01	0.04	0.002	0.001	0.001	0.0003	0.37	0.38	

Mechanical Properties										
Heat	Test Type	Microstructure	Hardness HRBW	Flattening Test	Tension Test		Yield (Rp0.2) psi	Tensile (Rm) psi	Y/T (Rt0.5/Rm)	Elongation (A) %
					50mm GI; 38mm x WT	Transverse				
BSM-0328	Heat	Ferrite & Pearlite	75	Pass		40,700	43,600	71,500	0.57	44
								70,000	0.62	45

Additional Details:

- ✓ We hereby certify that this pipe product was manufactured, sampled, tested and inspected by Bri-Steel Manufacturing Inc. in accordance with ASTM/ASME A/SA106-2011, A/SA53-2010 and the purchase order requirements, and that the results meet the corresponding requirements.
- ✓ This pipe product meet the sour service requirements of NACE MR0175/ISO 15156-2:2009 Annex A2 for Region 3 Sour Service, and NACE MR0103-2010 Section 2.1.
- ✓ No weld repairs have been performed on this product. This product has no mercury contamination.
- ✓ This certificate represents a quality control system that is compliant with EN 10204:2004 Type 3.1

Mill Test Certificate approved by:

[Signature]
 2012 May 30