

# Material Test Report

Heat Code: wox

An Ameri-Forge Group Company

13770 Industrial Rd. Houston, TX 77015

ISO 9001:2008 Certified

Sales: (713) 868-4421 Fax: (713) 455-8366

PLESA STEEL INC. 12700 NORTHBOROUGH DR STE 646 Houston, TX 77067	PO: 170	Sales Order: 132866	Line: 7
	Item Code: 0152600100-0020F		Qty Shipped: 100
	Item Desc: FLG 06.00 0150 SO RF		
	Supplier: ASW Steel Inc.		Supplier Heat: 76404
Spec: ASTM A105/A105M-(12)/ASME SA 105/SA 105M-(13) Section II Part A			

Element	(%wt)	Ladle	Product	EPCRA	CAS#	Element	(%wt)	Ladle	Product	EPCRA	CAS#
C	Carbon	0.19				Cr	Chromium	0.08			7440-47-3
Mn	Manganese	1.10		✓	7439-96-5	Mo	Molybdenum	0.02			
P	Phosphorous	0.007				V	Vanadium	0.002			
S	Sulphur	0.005				Cb	Columbium	0.002			
Si	Silicon	0.22				C.E.		0.41			
Cu	Copper	0.14		✓	7440-50-8	CuNiCrMo		0.311			
Ni	Nickel	0.07		✓	7440-02-0	CrMo		0.101			

Mechanical Testing				Other	
Test Lab	AFG			MILL	ASW STEEL
Test Bar Size	SACRIFICIAL PIECE			MHC	76404
HBW	152 - 152			Country of Origin	CANADA
Elg (%)	32				
RA (%)	64				
Tensile Specimen Size (in)	.496				
Tensile (ksi)	78.6				
Yield (ksi)	48.2				
Gauge Length	2				

AmeriForge manufactures materials according to a certified Quality Management System conforming to ISO 9001:2008 and in compliance to PED 97/23/EC, Section 4.3  
 No Weld repair performed. Chemical Analysis results shown are actual. Forgings are capable of passing hydrostatic test compatible with the appropriate rating. Elongation taken from a round specimen. Yield strength was determined using the .2% offset method. All material supplied under this order is certified to be free of mercury contamination and no mercury bearing equipment was used in manufacturing, fabrication or testing. Made in USA.  
 No weld repair performed on this product.  
 Product compliant with NACE MR0175 / ISO 15156 latest edition and dimensions to ASME B16.5 - 2013  
 Tensile Testing Per ASTM E8; Brinell Hardness Per ASTM E10

EPCRA Supplier Notification: This product may contain one or more toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act (Title III of the Superfund Amendments and Reauthorization Act of 1986) and 40 C.F.R. Part 372. Potentially reportable chemicals are indicated with a checkmark in the "EPCRA" column and a Chemical Abstract Services (CAS) registry number is provided for each such chemical in addition to the percent by weight of the chemical present in this product. It is your responsibility alone to determine whether your facility is required to submit a Toxic Release Inventory Report under EPCRA Section 313.

Certification No.: 291950  
 Certification Date: 2/18/2014

  
 Mandar Hingwe - Dir. of Quality and Metallurgy