

# Material Test Report

**COFFER**  
an **AFGlobal** Company

Heat Code: WMB

An Ameri-Forge Group Company  
13770 Industrial Rd. Houston, TX 77015  
Sales: (713) 868-4421 Fax: (713) 455-8366

ISO 9001:2008 Certified

PLESA STEEL INC.	PO: 140	Sales Order: 129876	Line: 1
5100 WESTHEIMER ROAD	Item Code: 0152400100-0020F		Qty Shipped: 3
SUITE 200	Item Desc: FLG 04.00 0150 SO RF		
Houston, TX 77056	Supplier: ASW Steel Inc.	Supplier Heat: 76328	
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	0.12		✓	7440-47-3
Mn	Manganese	1.07		✓	7439-96-5	Mo	Molybdenum	0.03			
P	Phosphorous	0.006				V	Vanadium	0.002			
S	Sulphur	0.001				Cb	Columbium	0.004			
Si	Silicon	0.23				C.E.		0.42			
Cu	Copper	0.20		✓	7440-50-8	CuNiCrMo		0.449			
Ni	Nickel	0.10		✓	7440-02-0	CrMo		0.149			

Mechanical Testing				Other			
Test Lab	AFG			MILL	ASW STEEL		
Test Bar Size	Sacrificial Piece			MHC	76328		
HBW	174 - 174			Country of Origin	CANADA		
Elg (%)	30.0			VD	Y		
RA (%)	75.0						
Tensile Specimen Size (in)	.496						
Tensile (ksi)	83.0						
Yield (ksi)	49.7						
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.: 283242

Certification Date: 11/10/2013

This report is issued in compliance with the requirements of EN10204 3.1 / ISO 10474 3.1.b

*M. Hingwe*  
Mandar Hingwe - Dir. of Quality and Metallurgy