

# Material Test Report

Heat Code: VTO

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. 5100 WESTHEIMER ROAD SUITE 200 Houston, TX 77056	PO: 145	Sales Order: 131118	Line: 6
	Item Code: 0151600102-0020F		Qty Shipped: 100
	Item Desc: FLG 06.00 0150 WN RF XH		
	Supplier: CMC	Supplier Heat: 3037931	

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	0.20				Cr	Chromium	0.08		✓	7440-47-3
Mn	Manganese	0.99		✓	7439-96-5	Mo	Molybdenum	0.03			
P	Phosphorous	0.010				V	Vanadium	0.003			
S	Sulphur	0.017				Cb	Columbium	0.000			
Si	Silicon	0.24				C.E.		0.41			
Cu	Copper	0.19		✓	7440-50-8	CuNiCrMo		0.379			
Ni	Nickel	0.08		✓	7440-02-0	CrMo		0.109			

Mechanical Testing				Other	
Test Lab		AFG		MILL	CMC
Test Bar Size		Sacrificial Piece		MHC	3037931
HBW		170 - 170		Country of Origin	USA
Elg (%)		26.0		EF	Y
RA (%)		54.0			
Tensile Specimen Size (in)		.492			
Tensile (ksi)		93.7			
Yield (ksi)		47.4			
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.: 287420

Certification Date: 1/6/2014

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

  
Mandar Hingwe - Dir. of Quality and Metallurgy