



Material Test Report

Heat Code: VCR

ISO 9001:2008 Certified

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

PLESA STEEL INC. 5100 WESTHEIMER ROAD SUITE 200 Houston, TX 77056	PO: 42	Sales Order: 116720	Line: 4
	Item Code: 0152920100-0020F		Qty Shipped: 3
	Item Desc: FLG 20.00 0150 SO RF		
	Supplier:		Supplier Heat: 14197
Spec: ASTM A105/A105M-(12)/ASME SA 105/SA 105M-(08a) Section II Part A			

Element	(%wt)	Ladle	Product	EPCRA	CAS#	Element	(%wt)	Ladle	Product	EPCRA	CAS#
C	Carbon	0.18				Cr	Chromium	0.09		✓	7440-47-3
Mn	Manganese	1.08		✓	7439-96-5	Mo	Molybdenum	0.04			
P	Phosphorous	0.008				V	Vanadium	0.004			
S	Sulphur	0.002				Cb	Columbium	0.002			
Si	Silicon	0.26				C.E.		0.40			
Cu	Copper	0.11		✓	7440-50-8	CuNiCrMo		0.290			
Ni	Nickel	0.05		✓	7440-02-0	CrMo		0.130			

Mechanical Testing				Other			
Test Lab		AFG		MHC		14197	
Test Bar Size		Sacrificial Piece					
HBW		163 - 163					
Elg (%)		32					
RA (%)		68					
Tensile Specimen Size (in)		.495					
Tensile (ksi)		76.1					
Yield (ksi)		43.4					
Gauge Length		2					

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 ANSI B16.5 - 2009
 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.: 256653
 Certification Date: 1/7/2013

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