



# Material Test Report

Heat Code: D-1165

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: 42	Sales Order: 116720	Line: 8
	Item Code: 0151916101-0020F		Qty Shipped: 10
	Item Desc: FLG 16.00 0150 WN RF STD		
	Supplier: MF RINGS		Supplier Heat: D-1165
Spec: ASTM A105/A105M-(11a)/ASME SA 105/SA 105M-(08a) Section II Part A			

Element	(%wt)	Ladle	Product	EPCRA	CAS#	Element	(%wt)	Ladle	Product	EPCRA	CAS#
C	Carbon	0.22				Cr	Chromium	0.01		✓	7440-47-3
Mn	Manganese	0.92		✓	7439-96-5	Mo	Molybdenum	0.001			
P	Phosphorous	0.024				V	Vanadium	0.003			
S	Sulphur	0.017				Cb	Columbium	0.01			
Si	Silicon	0.19				C.E.		0.35			
Cu	Copper	0.01		✓	7440-50-8	CuNiCrMo		0.024			
Ni	Nickel	0.001		✓	7440-02-0	CrMo		0.009			

Mechanical Testing		
Test Lab		MF RINGS
Test Bar Size		SACRIFICIAL PIECE
HBW		153 - 153
Elg (%)		30.6
RA (%)		59.6
Tensile Specimen Size (in)		.500
Tensile (ksi)		73.9
Yield (ksi)		45.0
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.: 250005

Certification Date: 10/12/2012

Nicholas Tepovich - Metallurgic Lab Manager