

# Material Test Report

Heat Code: 11793

An Ameri-Forge Group Company

13770 Industrial Rd. Houston, TX 77015

ISO 9001:2008 Certified

Sales: (713) 888-4421 Fax: (713) 455-8366

PLESA STEEL INC. 12700 NORTHBOROUGH DR STE 646 Houston, TX 77067	PO: 165	Sales Order: 132599	Line: 2
	Item Code: 0152936104-CG21F	Qty Shipped: 2	
	Item Desc: FLG 36.00 0150 SO RF		
	Supplier: MF RINGS	Supplier Heat: 11793	
Spec: ASTM A105/A105N-(12)/ASME SA 105/SA 105N-(13) Section II Part A - Normalized			

Element	(%wt)	Ladle	Product	EPCRA	CAS#	Element	(%wt)	Ladle	Product	EPCRA	CAS#
C	Carbon	0.21				Ni	Nickel	0.01		✓	7440-02-0
Mn	Manganese	0.96		✓	7439-96-5	Cr	Chromium	0.02		✓	7440-47-3
P	Phosphorous	0.020				Mo	Molybdenum	0.002			
S	Sulphur	0.005				V	Vanadium	0.0013			
Si	Silicon	0.24				Cb	Columbium	0.005			
Cu	Copper	0.01		✓	7440-50-8	C.E.		0.38			

Mechanical Testing				Heat Treat			
Test Lab		MF RINGS		Norm. Temp. (F)		1652	
Test Bar Size		SACRIFICIAL PIECE		Norm. (Hrs)		4	
HBW		153 - 156		Norm. Cooling Type		AIR	
Elg (%)		30.6					Other
RA (%)		60.5					
Tensile Specimen Size (in)		.500		EF			Y
Tensile (ksi)		74.4					
Yield (ksi)		45.5					
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.  
Product compliant with NACE MR0175 / ISO 15156 and NACE MR0103 latest edition and dimensions to ASME B16.47 - 2013 (SERIES A).  
No welding performed.

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.: 292729

Certification Date: 2/26/2014

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