



# Material Test Report

Heat Code: JRJ

An Ameri-Forge Group Company

13770 Industrial Rd. Houston, TX 77015

ISO 9001:2008 Certified

Sales: (713) 868-4421 Fax: (713) 455-8366

PLESA ANAHUAC Y CIAS	PO: 11304	Sales Order: 100764	Line: 16
SA DE CV AV. VALLE DE LAS	Item Code: 0151200101-0020F		Qty Shipped: 4
ALAMEDAS 66-0	Item Desc: FLG 02.00 0150 WN RF STD		
54940 TULTITLAN, EDO, MEX	Supplier: CMC	Supplier Heat: 3023952	
Spec: ASTM A105/A105M-(10)/ASME SA 105/SA 105M-(08a) Section II Part A			

Element	(%wt)	Ladle	Product	EPCRA	CAS#	Element	(%wt)	Ladle	Product	EPCRA	CAS#
C	Carbon	0.19				Cr	Chromium	0.06		✓	7440-47-3
Mn	Manganese	0.98		✓	7439-96-5	Mo	Molybdenum	0.03			
P	Phosphorous	0.009				V	Vanadium	0.004			
S	Sulphur	0.023				Cb	Columbium	0.001			
Si	Silicon	0.23				C.E.		0.40			
Cu	Copper	0.25		✓	7440-50-8	CuNiCrMo		0.440			
Ni	Nickel	0.10		✓	7440-02-0	CrMo		0.090			

Mechanical Testing			Other		
Test Lab		AFG	MILL		CMC-TEXAS
Test Bar Size		Sacrificial Piece	MHC		3023952
HBW		163 - 163			
Elg (%)		30.0			
RA (%)		46.0			
Tensile Specimen Size (in)		.499			
Tensile (ksi)		79.7			
Yield (ksi)		46.3			
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. 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. Yield strength was determined using the 0.2% offset method. No weld repair performed on this product.  
Product compliant with NACE MR0175, latest edition and dimensions to ASME B16.5-2009

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.: 219898

Certification Date: 10/4/2011

Nicholas Tepovich - Metallurgic Lab Manager