



# Material Test Report

Heat Code: HMV

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

ISO 9001:2000 Certified

PLESA ANAHUAC Y CIAS SA DE CV AV. VALLE DE LAS ALAMEDAS 66-0 54940 TULTITLAN, EDO, MEX	PO: 7995	Sales Order: 74164	Line: 4
	Item Code: 0152300100-0020F		Qty Shipped: 30
	Item Desc: FLG 03.00 0150 SO RF		
	Supplier: CMC	Supplier Heat: 3016004	

Spec: ASTM A105/A105M-(05)/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	0.08		✓	7440-47-3
Mn	Manganese	1.09		✓	7439-96-5	Mo	Molybdenum	0.02			
P	Phosphorous	0.008				V	Vanadium	0.002			
S	Sulphur	0.014				Cb	Columbium	0.002			
Si	Silicon	0.25				C.E.		0.41			
Cu	Copper	0.19		✓	7440-50-8	CuNiCrMo		0.36			
Ni	Nickel	0.07		✓	7440-02-0	CrMo		0.1			

Mechanical Testing				Other			
Test Lab	AFG			MILL	CMC-TEXAS		
Test Bar Size	Sacrificial Piece			MHC	3016004		
HBW	163 - 163			Country of Origin	USA		
Elg (%)	29.0			EF	Y		
RA (%)	60.0			Fully Killed	Y		
Tensile Specimen Size (in)	0.250						
Tensile (ksi)	81.2						
Yield (ksi)	46.5						
Gauge Length	1.00						

PLEASA ANAHUAC Y CIAS. S.A. DE C.V.  
 CONTROL DE CALIDAD  
 FECHA 18 May 2010  
 EBB  
 FIRMA E. RUIZ

Product compliant with NACE MR0175, latest edition and dimensions to ASME B16.5  
 Product compliant with and meets all requirements of ASTM A105/ASME SA105, latest edition.  
 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 MR0103, latest edition.

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.: 182177  
 Certification Date: 4/30/2010

*Nicholas Tepovich*

Nicholas Tepovich - Metallurgic Lab Manager