



# Material Test Report

Heat Code: HPK

ISO 9001:2000 Certified

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

PLESA ANAHUAC Y CIAS SA DE CV AV. VALLE DE LAS ALAMEDAS 66-0 54940 TULTITLAN, EDO, MEX	PO: 8359	Sales Order: 75365	Line: 9
	Item Code: 0152300100-0020F		Qty Shipped: 20
	Item Desc: FLG 03.00 0150 SO RF		
	Supplier: CMC		Supplier Heat: 3015238
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	0.08		✓	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			

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 1988) 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.: 184961  
 Certification Date: 6/24/2010

*Nicholas Tepovich*  
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 Nicholas Tepovich - Metallurgic Lab Manager