Material Test Report

Heat Code: AUZ

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	PO: 5647	Sales Order: 68015	Line: 9
SA DE CV AV. VALLE DE LAS	Item Code: 0151400101-0020F	Qty Shipped: 14	
ALAMEDAS 66-0	Item Desc: FLG 04.00 0150 WN RF STD		
54940 TULTITLAN, EDO, MEX	Supplier: CMC	Supplier Heat: 3001895	
Spec: ASTM A 105/A 105M-(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	0.20				Cr	Chromium	0.14		✓	7440-47-3
Mn	Manganese	0.90		✓	7439-96-5	Mo	Molybdenum	0.04			
P	Phosphorous	0.010				V	Vanadium	0.001			
S	Sulphur	0.019				Cb	Columbium	0.003			
Si	Silicon	0.18				C.E.		0.40933			
Cu	Copper	0.24		✓	7440-50-8	CuNiCrMo		0.53			
Ni	Nickel	0.11		✓	7440-02-0	CrMo		0.18			

Mechanical Testing		Other	
Test Lab	AFG	MILL	CMC
Test Bar Size	SACRIFICIAL PIECE	MHC	3001895
HBW	167 - 167	EF	Y
Elg (%)	28		
RA (%)	43		
Tensile Specimen Size (in)	.496		
Tensile (ksi)	77.8		
Yield (ksi)	44.0		
Gauge Length	2		

Product compliant with NACE MR0175 / ISO 15156, latest edition and dimensions to ANSI 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.

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.: 160424
Certification Date: 1/16/2009

This report is issued in compliance with the requirements of EN10204 3.1 / ISO 10474 3.1.b

Nicholas Tepovich - Metallurgic Lab Manager