



Material Test Report

Heat Code: **AXY**

An Ameri-Forge Group Company
13770 Industrial Rd., Houston, TX 77055

ISO 9001:2000 Certified

Sales: (713) 888-4421 Fax: (713) 455-866

PLESA AHUAC Y CIAS	PO: 5177	Sales Order: 66675	Line: 13
SA DE AV. VALLE DE LAS	Item Code: 0603800100-0021F	Qty Shipped: 4	
ALAMEDA 66-0	Item Desc: FLG 08.00 0600 BL RF	A105	NRM COFFR
54940 TLITLAN, EDO MEX	Supplier: CMC	Supplier Heat: 3003117	
Spec: FPM A 105/A 105M-03/ASME SA 105/SA 105M-05 Normalized			

Element	(%wt)	Ladle	Product	EPCRA	CAS#	Element	(%wt)	Ladle	Product	EPCRA	CAS#
C	0.20					Ni	Nickel	0.08		✓	7440-02-0
Mn	0.90			✓	7439-96-5	Cr	Chromium	0.07		✓	7440-47-3
P	0.007					Mo	Molybdenum	0.019			
S	0.016					V	Vanadium	0.002			
Si	0.16					Cb	Columbium	0.003			
Cu	0.21			✓	7440-50-8	C.E.		0.39			

Mechanical				Heat Treat	
Test Lab		AFG	Norm. Temp. (F)		1675
Test Bar Size		SACRIFICIAL PIECE	Norm. (Hrs)		4.0
HBW		146-146	Norm. Cooling Type		AIR
Elg (%)		34.0	Norm. Location		AFG
RA (%)		61.0			
Tensile Specimen Size (in)		0.496			
Tensile (ksi)		73.8	Country of Origin		USA (US)
Yield (ksi)		42.8	EF		Y
Gauge Length		2.00			

Product: Compliant with NACE MR0175, latest edition and dimensions to ANSI B16.5
 No Weld: Repair performed. Chemical Analysis results shown are actual. Forgings are capable of passing
 hydrosta: 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 Suppl: Notification: This product may contain one or more toxic chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Commu
 Right-to-Know: (Title III of the Superfund Amendments and Reauthorization Act of 1980) 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 i
 this product. If: your responsibility alone to determine whether your facility is required to submit a Toxic Release Inventory Report under EPCRA Section 313.

Certificate No.: 151571
 Certificate Date: 10/14/2008

Nicholas Tepovich - Metallurgic Lab Manager

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