## **Material Test Report**

Heat Code: JOJ

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

ISO 9001:2008 Certified

Line: 11

Supplier Heat: 3022501

PLESA ANAHUAC Y CIAS SA DE CV AV. VALLE DE LAS ALAMEDAS 66-0 54940 /TULTITLAN, EDO, MEX PO: 10880 Sales Order: 98043 Item Code: 0601400101-0021F Qty Shipped: 30 Item Desc: FLG 04.00 0600 WN RF STD

Spec: ASTM A105/A105N-(10)/ASME SA 105/SA 105N-(08a) Section II Part A - Normalized

Supplier: CMC

Elen	nent	(%wt)	Ladle	Product	EPCR/	CAS#	Element	(%wt)	Ladle	Product	EPCR#	CAS#
С	Carbon		0.20				Ni Nick	el	0.10		1	7440-02-0
Mn	Mn Manganese 1.04		1.04		✓ 7439-96-5		Cr Chro	mium	0.11		✓	7440-47-3
P	P Phosphorous 0.011		0.011				Mo Moly	bdenum	0.028			
S	Sulphu	r .	. 0.021				V Vana	dium	0~003			
Si	Silico	n	0.23				Cb Colu	mbium	0.001			
Cu	Cu Copper		0.24		✓	7440-50-8	C.E.		0.42			

Mechanical T	esting		Heat Treat				
Test Lab	AFG	Norm. Temp. (F)	1675				
Test Bar Size	TEST PIECE	Norm. (Hrs)	4				
HBW	159 - 159	Norm. Cooling Type	AIR				
Elg (%)	24	Norm. Location	AFG				
RA (%)	35	<u>:</u>					
Tensile Specimen Size (in)	,497		Other				
Tensile (ksi)	79.7	MILL	CMC-TEXAS				
Yìeld (ksi)	48.4	мнс	3022501				
Gauge Length	2						
		:					
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		:					

Product compliant with NACE MR0175 and NACE MR0103 latest edition and dimensions to ANSI B16.5. 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 welding performed.

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.:

213927

Certification Date:

7/26/2011

Nicholas Tepovich - Metallurgic Lab Manager

Violadas Japane