

## **Material Test Report**

Heat Code: HWC

An Ameri-Forge Group Company 13770 Industrial Rd. Houston, TX 77015

Line: 15

ISO 9001:2008 Certified Sales: (713) 868-4421 Fax: (713) 455-8366

PLESA ANAHUAC Y CIAS PO: 9545 Sales Order: 90421 SA DE CV AV. VALLE DE LAS item Code: 0601600102-0021F Qty Shipped: 15 ALAMEDAS 66~0 Item Desc: FLG 06.00 0600 WN RF XH 54940 TULTITLAN, EDO, MEX Supplier: CMC Supplier Heat: 3017707

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

Elen	nent (%wt)	Ladie	Product	EPCRA	CAS#	Eleme	nt (%wt)	Ladle	Product	EPCRA	CAS#
С	Carbon	0.20				Ni N	lickel	0.08		V .	7440-02-0
Μn	Manganese	1.03		V 7	439-96-5	Cr c	hromium	0.10		✓ :	7440-47-3
P	Phosphorous	0.012				Mo M	folybdenum	0.020			
S	Sulphur	0.025				. ∠ v	anadium	0.002			
Si	Silicon	0.22				Cb c	<b>ol</b> umbium	0.001			
Cu	Copper	0.28		1 7	440-50-8	C.E.		0.42			
						;					

Mechanical T	esting	Heat	Heat Treat			
Test Lab	AFG	Norm. Temp. (F)	1675			
Test Bar Size	Test Piece	Norm. (Hrs)	4			
нви	156 - 156	Norm. Cooling Type	AIR			
Elg (%)	32	Norm. Location	AFG			
RA (%)	55					
Tensile Specimen Size (in)	.495	Ot	ther			
Tensile (ksi)	77.8	MILL	CMC-TEXAS			
Yield (ksi)	47.7	MHC	3017707			
Gauge Length	2	DESC:	PO#P9212-19456-10			
		<u> </u>				
		·				

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 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 Plannino 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.:

196509

Certification Date:

12/16/2010

Nicholas Tepovich - Metallurgic Lab Manager

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