

Material Test Report

Heat Code: JMO

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

Line: 17

ISO 9001:2008 Certified

ed Sales: (713) 868-4421 Fax: (713) 455-8366

PLESA ANAHUAC Y CIAS SA DE CV AV. VALLE DE LAS ALAMEDAS 66-0 Item Desc: FLG 02.00 0600 WN RF XH

54940 TULTITLAN, EDO, MEX Supplier: CMC Supplier Heat: 3022375

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

Elen	nent (%wt)	Ladle	Product	EPCR	A CA	S#	Elem	ent	(%wt)	Ladle	Product	EPCR	A CAS#
С	Carbon	0.21					Ni	Nickel		0.09		1	7440-02-0
Mn	Manganese	1.01		1	7439-	96-5	Cr	Chromiu	m	0.08		1	7440-47-3
P	Phosphorous	0.009					Мо	Molybde	num	0.028			
S	Sulphur	0.020					v	Vanadiu	m	0.002			
Si	Silicon	0.21					Cb	Columbi	um	0.001			
Cu	Copper	0.23		✓	7440-	8-03	C.E.			0.42			
		Mechanical	Testing				:			Heat Tr	eat		
rest	Lab		STO	RK			Norm	. Temp.	(F)		167	15	
lest	Bar Size TEST PIECE			Norm	. (Hrs)			4					
HRW	BW 149 - 152			Norm	Cool 4	na Tuna		ATE					

Mechanical T	esting	He	Heat Treat				
Test Lab	STORK	Norm. Temp. (F)	1675				
Test Bar Size	TEST PIECE	Norm. (Hrs)	4				
HBW	149 - 152	Norm. Cooling Type	AIR				
Elg (%)	30.0						
RA (%)	63.0		Other				
Tensile Specimen Size (in)	.353	MILL	CMC-TEXAS				
Tensile (ksi)	78.5	MHC	3022375				
Yield (ksi)	47.1	EF	Y				
Gauge Length	1						
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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.:

207632

Certification Date:

5/11/2011

Nicholas Tepovich - Metallurgic Lab Manager

Violadas Lepare