

Material Test Report

Heat Code: 2804428

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

ISO 9001:2008 Certified

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

PLESA ANAHUAC Y CIAS

SA DE CV AV. VALLE DE LAS

PO: 10734

Sales Order: 97054

Line: 7

ALAMEDAS 66-0

Item Code: 0302924100-CG20F Item Desc: FLG 24.00 0300 SO RF Qty Shipped: 4

54940 TULTITLAN, EDO, MEX

Supplier: MF RINGS

Supplier Heat: 2804428

Spec: ASTM A105/A105M-(10)/ASME SA 105/SA 105M-(08a) Section II Part A

C Carbon 0.22	Eler	nent	(%wt)	Ladle	Product	EPCR	A CAS#	Element	(%wt)	Ladle	Product	EPCRA	CAS#
P Phosphorous 0.015 V Vanadium 0.001 S Sulphur 0.011 Cb Columbium 0.01 Si Silicon 0.26 C.E. 0.36 Cu Copper 0.01 ✓ 7440-50-8 CuNiCrMo 0.023 Ni Nickel 0.01 ✓ 7440-02-0 CrMo 0.010	С	Carbon		0.22				Cr Chrom:	ium	0.01		V 70	140-47-3
S Sulphur 0.011 Cb Columbium 0.01 Si Silicon 0.26 C.E. 0.36 Cu Copper 0.01	Mn	An Manganese		0.82		1	7439-96-	Mo Molybo	denum	0.003			
Si Silicon 0.26 C.E. 0.36 Cu Copper 0.01 ✓ 7440-50-8 CuNiCrMo 0.023 Ni Nickel 0.01 ✓ 7440-02-0 CrMo 0.010	P	P Phosphorous		0.015				V Vanad	ium	0.001			
Si Silicon 0.26 Cu Copper 0.01 V 7440-50-8 CuNiCrMo Cu Nickel 0.01 V 7440-02-0 CrMo 0.010	S	Sulphu	r	0.011				Cb Columb	oium	0.01			
Ni Nickel 0.01 ✓ 7440-02-0 CrMo 0.010	Si	Silico	n	0.26				C.E.		-			
	Cu	1 Copper		0.01		/	7440-50-8	CuNiCrMo		0.023			
		Vi Nickel		0.01		1	7440-02-0	CrMo		0.010			
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Mechanical T	esting	Other				
Test Lab	MF RINGS	Fully Killed	Υ			
Test Bar Size	SACRIFICIAL PIECE					
нвм	156 - 156					
Elg (%)	30.8	:				
RA (%)	58.6					
Tensile Specimen Size (in)	0.498					
Tensile (ksi)	75.3					
Yield (ksi)	46.3					
Gauge Length	2					
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		•				
•						
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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 weld repair performed on this product.

Product compliant with NACE MR0175, latest edition and dimensions to ASME B16.5

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.:

212429

Certification Date:

7/7/2011

Nicholas Tepovich - Metallurgic Lab Manager

Violadas Lepane