Material Test Report

an AFGADAI Company

Heat Code: VVP

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

ISO 9001:2008 Certified

Sales: (713) 868-4421 Fax: (713) 455-8350

PLESA STEEL INC.	PO: 170	Sales Order: 132866	Line: 4		
12700 NORTHBOROUGH DR	Item Code: 0603400100-0021F Qty Shipped: 10				
STE 646	Item Desc: FLG 04.00 060	O BL RF	A trade of the second s		
Houston, TX 77067	Supplier: CMC	Supplier Heat: 303	8568		
Spec: ASTM A105/A105N-(12)/A	SME SA 105/SA 105N-(13)Se	ction II Part A - Nor	malized		

Eler	ment	(%wt)	Ladle	Product	EPCRA	CAS#	Elemer	nt (°	%wt)	Ladle	Product	EPCI	RA CASE
C	Carbon		0.20				:Ni N	ickel		0.13		7	7440-02-0
Mn	Mahgan	256	1.00		1 7	439-96-5	Cr c	hromium		0.11		1	7446 -67-3
5	Phosph	orous	0.011				Мо м	olybdenu	m	0.042			
S	Sulphu	r	0.021				v v	anadium		0.002			
Si	Silico	η	0.21				Cb c	olumbium		0.000			
Сп	Copper		0.20		✓ 7	440-50-8	C.E.			0.42			

Mechanical 1	Testing	Hea	t Treat	
Test Lab	AFG	Norm. Temp. (F)	1675	
Test Bar Size	Sacrificial Piece	Norm. (Hrs)	4	
RBW	149 - 149	Norm. Cooling Type	AIR	
Elg (%)	32	Norm. Location	AFG	
RA (%)	63			
Tensile Specimen Size (in)	. 497	0	ther	
Tensile (ksi)	77.8	MILL	CMC	
Yield (ksi)	47.6	MHC	3038568	
Gauge Length	2	Country of Origin	USA (US)	
		EF	Y	

Product compliant with NACE MR0175 / ISO 15156 and NACE MR0103 latest edition and dimensions to ASME 815.5

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. Yield strangers was determined using the .2% offset method. 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. Made in USA.

AmeriForge manufactures materials according to a certified Quality Management System conforming to ISO 9001:2000 and in compiance to PED 97/23/EC, Section 4.3

Tensile Testing Per ASTM E8: Brinell Hardness Per ASTM E10

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. Parl 372. Potentially reportable chemicals are indicated which 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.:

291964

Certification Date: 2/18/2014

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

Mandar Hingwe - Dir. of Quality and Metallurgy