Material Test Report

Heat Code: VAD

ISO 9001:2008 Certified

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

PLESA STEEL INC.	PO: 99	Sales Order: 125620	Line: 8
5100 WESTHEIMER ROAD	Item Code: 0601200101-0021F	Qty Shipped: 50	
SUITE 200	Item Desc: FLG 02.00 0600 WN RF STD		
Houston, TX 77056	Supplier: CMC	Supplier Heat: 3035606	

Spec: ASTM A105/A105N-(12)/ASME SA 105/SA 105N-(08a) Section II Part A - Normalized

Element	(%wt)	Ladle	Product	EPCRA	CAS#	Element	(%wt)	Ladle	Product	EPCRA	CAS#
C	Carbon	0.20				Ni	Nickel	0.07		✓	7440-02-0
Mn	Manganese	1.03		✓	7439-96-5	Cr	Chromium	0.05		✓	7440-47-3
P	Phosphorous	0.010				Mo	Molybdenum	0.020			
S	Sulphur	0.017				V	Vanadium	0.002			
Si	Silicon	0.23				Cb	Columbium	0.004			
Cu	Copper	0.20		✓	7440-50-8	C.E.		0.40			

Mechanical Testing

Test Lab	AFG
Test Bar Size	Sacrificial Piece
HBW	149 - 149
Elg (%)	36
RA (%)	58
Tensile Specimen Size (in)	.248
Tensile (ksi)	80.2
Yield (ksi)	47.4
Gauge Length	1

Heat Treat

Norm. Temp. (F)	1675
Norm. (Hrs)	4
Norm. Cooling Type	AIR
Norm. Location	AFG

Other

MILL	CMC
MHC	3035606
Country of Origin	USA
EF	Y
DESC:	SPL 2"

Product compliant with NACE MR0175 / ISO 15156 and NACE MR0103 / ISO 15156 latest edition and dimensions to ANSI B16.5 - 2009
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 strength 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.
No welding performed.
AmeriForge manufactures materials according to a certified Quality Management System conforming to ISO 9001:2008 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. 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.: 272757
Certification Date: 7/16/2013

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