COFFER®
an AFGlobal Company

Material Test Report

Heat Code: XBL

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: 170	Sales Order: 132866	Line: 11
12700 NORTHBOROUGH DR	Item Code: 0601300101-0021F	Qty Shipped: 20	
STE 646	Item Desc: FLG 03.00 0600 WN RF STD		
Houston, TX 77067	Supplier: CMC	Supplier Heat: 3042305	

Spec: ASTM A105/A105N-(12)/ASME SA 105/SA 105N-(13)Section II Part A - Normalized

Element	(%wt)	Ladle	Product	EPCRA	CAS#
C	Carbon	0.19			
Mn	Manganese	1.09		✓	7439-96-5
P	Phosphorous	0.013			
S	Sulphur	0.022			
Si	Silicon	0.22			
Cu	Copper	0.24		✓	7440-50-8

Element	(%wt)	Ladle	Product	EPCRA	CAS#
Ni	Nickel	0.08		✓	7440-02-0
Cr	Chromium	0.11		✓	7440-47-3
Mo	Molybdenum	0.018			
V	Vanadium	0.001			
Cb	Columbium	0.003			
C.E.		0.42			

Mechanical Testing

Test Lab	AFG
Test Bar Size	SACRIFICIAL PIECE
HBW	163 - 163
Elg (%)	34
RA (%)	64
Tensile Specimen Size (in)	.496
Tensile (ksi)	79.1
Yield (ksi)	48.6
Gauge Length	298

Heat Treat

Norm. Temp. (F)	1675
Norm. (Hrs)	46.0
Norm. Cooling Type	AIR
Norm. Location	AFG

Other

MILL	CMC
MHC	3042305
Country of Origin	USA
EF	Y

Product compliant with NACE MR0175 / ISO 15156 and NACE MR0103 latest edition and dimensions to ASME B16.5 - 2013.
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.
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.: 291960

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