



METALLURGICAL TEST REPORT

NORTH AMERICAN STAINLESS
6870 HIGHWAY 42 EAST
GHENT, KY 41045

C095913

6870 HIGHWAY 42 EAST

Certificate: 901293 1
Customer: 007226 001
Mail To: ASA ALLOYS
20 CHALLENGER CRES.
SHERWOOD PARK, AB T8H2R1

Ship To: ASA ALLOYS
20 CHALLENGER CRES.
SHERWOOD PARK, AB T8H2R1

Date: 12/18/2013 Page: 1

Steel: 316/316L

Finish: ST

Your Order: P031310

NAS Order: PN 0033284 01

K5K5-2.0

Corrosion: ASTM A262 Prac E OK

PRODUCT DESCRIPTION:

NACE MR0175 (MID RADIUS ONLY)
Round Bar, Annealed, Smooth Turned, Cold Finished
UNS 31600/31603, EN 10204 3.1, ASTM A484/13a
ASTM A276/10, ASTM A479/13a, ASTM A182/13 CHEM ONLY,
ASME SA479/10a, ASME SA182/10 CHEM ONLY, ASTM F899/11
AMS 5648L/AMS 5653G, AMS QQS-763B, QQS 763F
SOLUTION ANNEAL TEMP 1900F MIN, ASTM A320/08 CL 1 GR B8M
ASTM A193/10A-ASME SA193/10 CL 1 GR B8M(EXC PAR 7.2)

REMARKS:

COMPLIES W/REQUIREMENTS OF D FAR 252.225-7008 EU DIRECTIVE
2011/65/EU. RoHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG
IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Product Id	Skid #	Diameter	Size	Weight	-----Length-----	Mark	Pieces	Commodity Code
BF9358 4		2.0000		1,120	144.00	7	1	

CHEMICAL ANALYSIS

CM(Country of Melt) ES(Spain) US(United States) ZA(South Africa) JP(Japan)

Chemical Analysis per ASTM A751/08

HEAT	CM	C %	CO %	CR %	CU %	MN %	MO %	N %	NI %	P %
K5K5	US	.0159	.2210	16.6355	.3500	1.4185	2.0160	.0485	10.5850	.0290
		S %	SI %							
		.0250	.2395							

MECHANICAL PROPERTIES

Product Id	l d	HB	.2YS	UTS	RA	Elong
	o i	No.	KSI	KSI	%	% 4D
	c r					
BF9358 4	R L	144.00	43.00	83.00	54.00	43.00

NAS hereby certifies that the analysis on this certification is correct. Based upon the results and the accuracy of the test methods used, the material meets the specifications stated. These results relate only to the items tested and this report cannot be reproduced, except in its entirety, without the written approval of NAS.

Technical
Dept. Mgr.

ERIC HESS

12/18/2013