



METALLURGICAL TEST REPORT

NORTH AMERICAN STAINLESS
6870 HIGHWAY 42 EAST
GHENT, KY 41045

CO 74449

6870 HIGHWAY 42 EAST

Certificate: 809898 7

Mail To:

Ship To:

Date: 2/12/2013 Page: 1

Customer: 007226 001

ASA ALLOYS
20 CHALLENGER CRES.
SHERWOOD PARK, AB T8H2R1

F4C3

ASA ALLOYS
20 CHALLENGER CRES.
SHERWOOD PARK, AB T8H2R1

Steel: 316/316L

Finish: ST

Your Order: P028878

NAS Order: PN 0024410 30

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 A484/11
ASTM A276/10, ASTM A479/11, ASTM A182/10 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

REMARKS:

COMPLIES W/REQUIREMENTS OF DEAR 252.225-7014A-1 EU DIRECTIVE
2002.95.EC.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
BF2100 3		3.7500		1.818	144.00	43	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 %
F4C3 <i>off</i>	US	.0228	.3270	16.6745	.4670	1.3310	2.0235	.0417	10.5350	.0370
		S %	SI %							
		.0210	.3030							

MECHANICAL PROPERTIES

Product Id	1 d o i o r	HB No.	.2YS KSI	UTS KSI	RA %	Elong % 4D
BF2100 3	R L	141.00	38.00	84.00	53.00	42.00

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

2/12/2013