



ASA
 PD77749
 WO 5874+5875

METALLURGICAL TEST REPORT

NORTH AMERICAN STAINLESS
 6870 HIGHWAY 42 EAST
 GHENT, KY 41045

6870 HIGHWAY 42 EAST

CPA 3FOEL 40+80

Certificate: 808650 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: 3/18/2013 Page: 1

Steel: 316/316L ✓

Finish: ST

Your Order: P028988

NAS Order: PN 0024831 01

Corrosion: ASTM A262 Prac E OK

FIP4

PRODUCT DESCRIPTION:

NACE MR0175/10(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 DFMAR 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
BF2036 6		5.2500 ✓		1,715	144.00	1	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 %
FIP4 ✓	US	.0154	.3500	16.6135	.4650	1.3530	2.0480	.0430	10.5550	.0320
		S %	SI %							
		.0275	.3415							

MECHANICAL PROPERTIES

Product Id	1 d o i c r	HB No.	.2YS KSI	UTS KSI	RA %	Elong % 4D
BF2036 6	R L	140.00	38.00	83.00	54.00	44.00

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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
 ERIC HESS 3/18/2013