

Certificate: 824918 21

Mail To:
COPPER AND BRASS SALES, INC.
ATTN: ACCOUNTS PAYABLE
SOUTHFIELD MI 48086-

Ship To:
COPPER AND BRASS SALES, INC.
8001 MURPHY WAY
NORTHWOOD OH 43619

Date: 4/08/2013 Page: 1 of 1
Steel: 316/316L
Finish: Hot Finish
Dia/Thk: 4.0000 in
Leg Length:
Length: 144.00 in
Corrosion: ASTM A262 Prac E OK

Customer: 0925 045

NAS Order: LN 97233 11

Your Order: 5400176876

Item Code: SSRD01323

PRODUCT DESCRIPTION:

Round Bar, Hot Rolled, Annealed, Rough Turned
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
NACE MR0175/MR0103 (MID RADIUS ONLY),
SOLUTION ANNEAL TEMP 1900F MIN

REMARKS:

COMPLIES W/REQUIREMENTS OF DPAR 252.225-7014A-1 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

F9F1

Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight
BF31851	2123								

CHEMICAL ANALYSIS

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

Chemical Analysis per ASTM A751/08

Heat	Supplier #	CM	C %	CO %	CR %	CU %	MN %	MO %	N %	NI %	P %	S %
F9F1		US	.017	.23	16.54	.32	1.33	2.02	.045	10.51	.030	.0220
			SI %									
			.31									

MECHANICAL PROPERTIES

	1 d o i n r	HB No.	.2YS KSI	UTS KSI	RA %	Elong % 4D
BF31851	R L	148.0	39.00	84.00	70.00	59.00

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
ERIC HESS