

ESP9



METALLURGICAL TEST REPORT

6870 Highway 42 East
Ghent, KY 41045-9615
(502) 347-6000

John L. Zumbroth

Certificate: 796515 07 Mail To: Ship To: Date: 12/20/2012 Page: 1 Of 1
 Customer: 0925 022 COPPER AND BRASS SALES, INC. COPPER AND BRASS SALES, INC. Steel: 316/316L
 NAS Order: LN 90727 2 ATTN: ACCOUNTS PAYABLE CUSTOMER PICKUP Finish: Hot Finish
 Your Order: 5400160043 SOUTHFIELD MI 48086- GHENT KY 41045 Dia/Thk: 3.0000 in
 Item Code: Leg Length: Length: 144.00 in
 Corrosion: ASTM A262 Prac E OK

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
 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 EN DIRECTIVE
 2002.95.EC.ROHS. EAF+AOD+CC. NO WELD REPAIR. MELTED AND MFG
 IN USA FREE FROM MERCURY AND LOW MELTING ALLOY CONTAMINATION

Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight
BF04537	1440								

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 %
ESP9		US	.017	.28	16.70	.45	1.47	2.03	.049	10.55	.030	.0200
			SI %									
			.35									

MECHANICAL PROPERTIES

Heat	HB	YS	UTS	RA	Elong	
o i	No.	KSI	KSI	%	% 4D	
BF04537	R L	143.0	38.00	82.00	71.00	61.00

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

Technical Dept. Mgr. *[Signature]*

Del.: 2402308951
 CUST: ATLANTIS INDUSTRIES
 FROM: Copper and Brass Sales CA
 DATE: 02/12/2013
 WT: 298.000 LB