



METALLURGICAL TEST REPORT

E4N2.

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

Certificate: 788901 12	Mail To: COPPER AND BRASS SALES, INC. ATTN: ACCOUNTS PAYABLE SOUTHFIELD MI 48086-	Ship To: COPPER AND BRASS SALES, INC. CUSTOMER PICKUP GHENT KY 41045	Date: 11/25/2012 Page: 1 Of 1 Steel: 316/316L Finish: Cold Finish Dia/Thk: 2.1250 in Leg Length: Length: 144.00 in Corrosion: ASTM A262 Prac E OK
Customer: 0925 022			
NAS Order: LN 90024 3			
Your Order: 5400157289	Item Code:		

PRODUCT DESCRIPTION:

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
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
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
BF01808	1176								

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 %
E4N2		US	.013	.23	16.73	.38	1.36	2.03	.049	10.52	.033	.0235
			SI %									
			.32									

MECHANICAL PROPERTIES

	l d	HB	.2YS	UTS	RA	Elong
	o i	No.	KSI	KSI	%	% 4D
	c r					
BF01808	R L	142.0	41.10	84.30	56.30	43.80

NAS hereby certifies that the analysis of 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

Technical

CstAr Wgt.: 43° 000 LB

CstOr Bozo Date 05/15/2013

John G. Zambetti