



H2N1 - 3.25

METALLURGICAL TEST REPORT

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

Certificate: 877211 10
Customer: 0925 072
NAS Order: LP 8738 4
Your Order: 5400197988

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

Ship To:
COPPER AND BRASS SALES, INC.
12321 CUTTEN ROAD
HOUSTON TX 77066

Date: 10/05/2013 Page: 1 Of 1
Steel: 316/316L
Finish: Hot Finish
Dia/Thk: 3.2500 in
Leg Length: 240.00 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 A479/13a, 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, ASTM A320/08 CL 1 GR B8M
ASTM A193/10A-ASME SA193/10 CL 1 GR B8M(EXC PAR 7.2)

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

Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight	Bundle Weight
BF77894	1163	BF77895	1751						

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 %
H2N1		US	.021	.60	16.80	.28	1.43	2.02	.043	10.53	.033	.0210
			SI %									
			.37									

MECHANICAL PROPERTIES

1 d	HB	.2YS	UTS	RA	Elong	
o i	No.	KSI	KSI	%	% 4D	
c r						
BF77894	R L	140.0	39.00	83.00	54.00	41.00
BF77895	R L	140.0	39.00	83.00	54.00	41.00

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

John L. Zambelli

Del.: 2403355046

CstOr 2012-495

Date 08/28/2014

From: Copper and Brass Sales CA

Cust. M2M MACHINING

CstAR

Wgt.: 272 LB