



# METALLURGICAL TEST REPORT

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

**E7M2.**

<b>Certificate:</b> 796515 14	<b>Mail To:</b> COPPER AND BRASS SALES, INC. ATTN: ACCOUNTS PAYABLE SOUTHFIELD MI 48086-	<b>Ship To:</b> COPPER AND BRASS SALES, INC. CUSTOMER PICKUP GHENT KY 41045	<b>Date:</b> 12/20/2012 <b>Page:</b> 1 Of 1
<b>Customer:</b> 0925 022			<b>Steel:</b> 316/316L
<b>NAS Order:</b> LN 90728 3			<b>Finish:</b> Hot Finish
<b>Your Order:</b> 5400160045	<b>Item Code:</b>		<b>Dia/Thk:</b> 5.0000 in
			<b>Leg Length:</b>
			<b>Length:</b> 144.00 in
			<b>Corrosion:</b> ASTM A262 Frac 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 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
BF08724	1518	BF08725	1515					

**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 %
E7M2		US	.018	.25	16.64	.42	1.41	2.04	.036	10.53	.031	.0220
			SI %									
			.33									

**MECHANICAL PROPERTIES**

	1 d o i c r	HB No.	.2YS KSI	UTS KSI	RA %	Elong % 4D
BF08724	R L	140.0	41.00	84.00	54.00	46.00
BF08725	R L	140.0	41.00	84.00	54.00	46.00

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 to the items tested and report cannot be reproduced, except in its entirety, without the written approval of NAS

Technical  
Dept. Mgr.

*Eric Hess*  
ERIC HESS

*John L. Zumbro*

Del.: 2402396823  
CstOr Bozo  
Date 04/01/2013  
From: Copper and Brass Sales CA  
Cust. ATLANTIS INDUSTRIES  
CstAr  
Wgt.: 767.500 LB