

4TR240
PO# 2116
ESH9



METALLURGICAL TEST REPORT

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

Certificate: 796515 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: 12/20/2012 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 022			
NAS Order: LN 90728 1			
Your Order: 5400160045	Item Code:		

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	Bundle Weight
BF05636	2072								

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 %
ESH9		US	.019	.23	16.75	.47	1.35	2.06	.045	10.63	.033	.0275
			SI %									
			.23									

MECHANICAL PROPERTIES

Id	HB	.2YS	UTS	RA	Elong	
o i	No.	KSI	KSI	%	% 4D	
f r						
BF05636	R L	172.0	45.00	87.00	52.00	68.00

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 report cannot be reproduced, except in its entirety, without the written approval of NAS

Technical Dept. Mgr. ERIC HESS

Del.: 2402308951
CSTOR BOZO
Date 02/12/2013
From: Copper and Brass Sales CA
Cust. ATLANTIS INDUSTRIES
CstAR
Wgt.: 498.000 LB