

47207

43109-08



ELECTRALLOY
175 Main Street
OH City, PA 16301
PHONE: 814-678-4200
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**MATERIAL CERTIFICATION
REPORT and CERTIFICATE
OF QUALITY CONFORMANCE**

d300029280

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<u>CUSTOMER NAME AND ADDRESS</u> Copper & Brass Sales Accounts Payable 22355 West 11 Mile Road Southfield, MI 48034-4735	CUSTOMER ORDER NO. 5400003432 IDENTIFICATION Heat No. 47207 <p style="text-align: right; margin-top: 10px;">SSR001246</p>
PRODUCT DESCRIPTION SPEED-E-MAC, Stainless Steel Bar, electric arc furnace melted, A.O.D. refined, hot press forged, solution annealed, water quenched, bar peeled, with saw cut square ends.	

SPECIFICATIONS

Type 316/316L(UNS S31600/S31603) - ASTM A182/A182M-06, AMS 5648K, AMS 5653F
ASTM A193/A193M-06a, (316), ASTM A320/A320M-05a (316), ASTM A479/A479M-06a
ASTM A314-97, ASTM A473-01, ASTM A276-06, NACE MRO175/ISO 15156-3:2003E,
ASTM A336/A336M-06a. ASME SA-182/SA-182M, ASME SA-336/SA-336M, ASME SA -
320/SA-320M02, (316)ASME SA-479/SA-479M including 1998 Addenda, ASTM A484/
A484-06b, ASTM SA-193/SA-193M-94, QQ-S-763F

CHEMICAL ANALYSIS

Heat Number	C	MN	P	S	SI	CR	NI	MO
47207	0.020	1.82	0.027	0.022	0.56	16.24	10.18	2.10
	CU	N	CO					
	0.61	0.074	0.14					

ITEM DESCRIPTION

Heat Number	HWRR	Quantity & Weight	Size
47207-3B		1 Bar - 5,355 Pounds.	Nom. 15"Rd. x 104.18"lg.

TENSILE PROPERTIES

Heat Number	Test Dir	Test Loc	Tensile (PSI)	.2% Yield (PSI)	Reduction (%)	Elong 4D (%)
47207-3B	LT	TOP	84360	43870	74.9	51.6

BRINELL/ROCKWELL

Heat Number	Test Loc	Brinell
47207-3B	TOP	159

Note: The recording of false, fictitious, or fraudulent statements or entries on this document may be punishable as a felony under Federal Statute.

The above are true and correct results of tests on samples of the material. Results conform to the specification(s) listed above and are on record.

Meets EU Electrical "RoHS".
Contains NO "WEEE" relevant substances.
Complies with DFARS-225.1-Buy American Act-Supplies.

By : Duane E. Kline Date: 12/11/08

HWRR = Minimum Hot Working Reduction Ratio.
Name : Duane E. Kline
Title: QC Technician/UT Technician/Works Inspector



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PASS/FAIL TESTS

Heat Number	Carb	Macro							
	Net	Etch							
47207-3B	P	P							

ASTM PRACTICES (Normal)

Heat Number	Prac E							
	TT	LT						
47207-3B	P							

OTHER TESTS

Heat Number	Grain Size					
	TT	LT				
47207-3B	4.0					

STATEMENTS

Material represented was melted and manufactured in the USA

At time of shipment, items and/or material produced under this order have not come in contact with mercury or its compounds.

Material represented was not weld repaired.

Material represented was solution annealed at 1925 deg. F +/- 25 deg. F held 30 minutes per inch of thickness and water quenched

Material represented was produced in accordance with the Electralloy

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<u>STATEMENTS</u>		
Quality Control Program dated 08/18/2008, which meets the requirements of ISO9001(2000), MIL-I-45208A and ASME Code Section 3, Subsection NCA 3800		
ASTM E1019-03, ASTM E572-02a, and ASTM E1086-94, are the methods used to determine the chemical analysis for Fe base (high alloy), Ni base and Cu base alloys.		
Material Certification conforms to Certificate 3.1 as in EN 10204.		
<u>COMMENTS</u>		
Part #399463-9 Material No. SSRD01246		

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