



P.O. BOX 977  
SYRACUSE  
NEW YORK 13201

# A19819 CERTIFICATE OF TEST

COPPER & BRASS SALES INC  
ATTN: ACCOUNTS PAYABLE  
22355 WEST ELEVEN MILE RD  
SOUTHFIELD MI 48034

S  
H COPPER & BRASS SALES  
I  
P 10648 W LITTLE YORK, SUITE 400  
T HOUSTON, TX 77041  
O

OUR ORDER NO.  
P5-11943-8-01  
DATE  
11/17/08

|                                   |                 |                       |                          |
|-----------------------------------|-----------------|-----------------------|--------------------------|
| CUSTOMER ORDER # & DATE<br>W64395 | CUSTOMER REQ. # | DISTRICT<br>B FARSONS | SHIPPED FROM<br>SYRACUSE |
|-----------------------------------|-----------------|-----------------------|--------------------------|

DESCRIPTION OF MATERIAL

CRU 316/316L RTA (P/N 399460-5) SIZE 14 RD  
 ASTM-A479-06A ASTM A276-06 AMS-5648K AMS-5653F ASME-SA479-07ED QQS-763F  
 DFARS 252.225.7014 & 225.7002-3 (B) (1) COMPLIANT ROHS COMPLIANT  
 EN 10204 3.1 NACE MR-01-75

| HEAT NO. | CHEMICAL ANALYSIS |      |      |      |     |       |       |      |     |      |
|----------|-------------------|------|------|------|-----|-------|-------|------|-----|------|
| A19819   | C                 | MN   | P    | S    | SI  | NI    | CR    | MO   | CU  | N    |
|          | .017              | 1.69 | .024 | .028 | .46 | 10.05 | 16.60 | 2.07 | .21 | .074 |

| QUANTITY | HEAT NO. | MECHANICAL PROPERTIES |           |           |           |          |
|----------|----------|-----------------------|-----------|-----------|-----------|----------|
| 6266 #   | A19819   | TENSILE PSI           | YIELD PSI | %ELONG2IN | RED/AREA% | HARDNESS |
|          |          | 78,830                | 36,200    | 47.5      | 50.2      | BHN 145  |

MACRO TEST OK  
 INTERGRANULAR CORROSION TEST OK.  
 GRAIN SIZE # 4.0  
 MATERIAL IS ROHS/WEEE COMPLIANT.  
 ISO 9001:2000 CERTIFICATION

REVISED COPY - ORIGINAL CERT DTD 04/07/08  
 MATERIAL FREE FROM MERCURY CONTAMINATION AT TIME OF SHIPMENT  
 NO WELD REPAIR PERFORMED  
 MATERIAL MELTED IN U.S.A. **MANUFACTURED BY THE EMPLOYEES OF CRUCIBLE SPECIALTY METALS**  
 THANK YOU FOR SELECTING A QUALITY PRODUCT

THE ABOVE MATERIAL WAS MANUFACTURED AND TESTED IN ACCORDANCE WITH ABOVE SPECIFICATIONS AND IS IN CONFORMANCE WITH THOSE SPECIFICATION REQUIREMENTS.  
 CRUCIBLE MATERIALS CORPORATION  
 ACTING BY AND THROUGH ITS SPECIALTY METALS DIVISION

SWORN TO AND SUBSCRIBED BEFORE ME THIS  
 \_\_\_\_\_ DAY OF \_\_\_\_\_ 20\_\_\_\_

CERTIFIED BY: \_\_\_\_\_  
 QUALITY ASSURANCE REPRESENTATIVE

NOTARY PUBLIC  
 JOHN M. FIRMAN - MANAGER OF QUALITY ASSURANCE