



P.O. BOX 977  
SYRACUSE  
NEW YORK 13201

# CERTIFICATE OF TEST

**A10496**

|  |  |                             |
|--|--|-----------------------------|
| S<br>D<br>T<br>O<br>COPPER & BRASS SALES INC<br>ATTN: ACCOUNTS PAYABLE<br>22355 WEST ELEVEN MILE RD<br>SOUTHFIELD MI 48034<br>9200041412 | S<br>H<br>I<br>P<br>T<br>O<br>COPPER & BRASS SALES<br>415 STATE HIGHWAY<br>SCHAUMBURG IL 60173 | OUR ORDER NO.<br>16960-8-01 |
|  |  | DATE<br>11/11/08            |

|   |                 |                       |                            |
|---|-----------------|-----------------------|----------------------------|
| CUSTOMER ORDER # & DATE<br>CZ8012 <b>5400003445</b> | CUSTOMER REQ. # | DISTRICT<br>E PARSONS | SHIPPED FROM<br>SCHAUMBURG |
|---|-----------------|-----------------------|----------------------------|

DESCRIPTION OF MATERIAL

CRU 316/316L RTA P/N 399456-3 SIZE 13 RD

ASTM-A479-06A ASTM A276-06 AMS-5648K AMS-5653F ASME-SA479-07ED WCC MR-01-75

LFORS 252,225,7014 & 225,7002-3 (B) (1) COMPLIANT ROHS COMPLIANT

| HEAT NO. | CHEMICAL ANALYSIS |      |      |      |     |       |       |      |     |      |
|----------|-------------------|------|------|------|-----|-------|-------|------|-----|------|
| A10496   | C                 | MN   | P    | S    | SI  | NI    | CR    | MO   | CU  | N    |
|          | .013              | 1.82 | .027 | .027 | .42 | 10.16 | 16.70 | 2.09 | .43 | .078 |

| QUANTITY | HEAT NO. | MECHANICAL PROPERTIES |            |           |           |          |
|----------|----------|-----------------------|------------|-----------|-----------|----------|
| 6273 #   | A10496   | TENSILE P51           | YLD. 22P51 | 2 ELONGAD | RED/AGE02 | HARDNESS |
|          |          | 82.050                | 34.780     | 56.1      | 67.5      | HR156    |

MACRO TEST OK

INTERGRANULAR CORROSION TEST OK

GRAIN SIZE # 5

MATERIAL MELTED BY ELECTRIC FURNACE ARGON OXYGEN DECARBURIZATION REFINED

MATERIAL ANNEALED AT 1900 DEG. F. - WATER QUENCHED.

MATERIAL IS ROHS/WEEE COMPLIANT.

MATERIAL FREE FROM MERCURY CONTAMINATION AT TIME OF SHIPMENT  
 NO WELD REPAIR PERFORMED  
 MATERIAL MELTED IN U.S.A.

THANK YOU FOR SELECTING A QUALITY PRODUCT  
 MANUFACTURED BY THE EMPLOYEES OF CRUCIBLE SPECIALTY METALS

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

\_\_\_\_\_  
 NOTARY PUBLIC

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

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