

CW606N

LEADED BRASS

DESCRIPTION

CW606N is a material which has been successfully used in automotive industries. It has both good machining and good cold working properties.

CHEMICAL COMPOSITION

| Elements | Min (%) | Max (%) |
|--------------|-----------|---------|
| Cu | 61.00 | 62.00 |
| Pb | 1.60 | 2.50 |
| Sn | - | 0.20 |
| Fe | - | 0.20 |
| Al | - | 0.05 |
| Ni | - | 0.30 |
| Total Others | - | 0.20 |
| Zn | Remainder | |

MECHANICAL PROPERTIES CW606N (AS PER TEMPER 400)

| Range (mm) | From | To | UTS Min (N/mm ²) | PS Min (N/mm ²) | Elongation Min (%) | Hardness Min | Hardness Max |
|--------------|------|-------|------------------------------|-----------------------------|--------------------|--------------|--------------|
| Round (Dia) | 2.00 | 20.00 | 400.00 | 200.00 | 12.00 | - | - |
| Hex (A/F) | 2.00 | 25.00 | 400.00 | 200.00 | 12.00 | - | - |
| Square (A/F) | 2.00 | 25.00 | 400.00 | 200.00 | 12.00 | - | - |

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PHYSICAL PROPERTIES

| | |
|---|-----------------------------|
| Melting Point | 885° |
| Density | 8.50g/cm3 |
| Electrical Resistivity | 0.066 x 10 ⁻⁶ Ωm |
| Thermal Conductivity Btu/ sq ft/ ft hr/ °F at 68°F | 115 W/m.K |
| Modulus of Elasticity | 105 Gpa |

FABRICATION PROPERTIES

| Technique | Suitability |
|--|-----------------|
| Hot Formability | Good |
| Cold Formability | Good |
| Cold Reduction Between anneals | 50% |
| Machinability rating (free cutting brass = 100) | 75% |
| Soldering | Excellent |
| Brazing | Good |
| Oxy-acetylene welding | Not recommended |
| Not recommended | Not recommended |
| Resistance welding: Spot and Seam | Not recommended |
| Butt Welding | Fair |

TYPICAL USES

- Fasteners
- Rivets
- Domestic appliances
- Automotive engineering
- Hose fittings
- Intricate parts such as clock components