

CW619N

FORGING BRASS

DESCRIPTION

CW619N, brass, is a readily extrudable leaded alpha/beta brass with a small Tin addition, which gives little bit of strength and resistance to corrosion. The lead gives free cutting properties. CW619 is available as extruded rods and flats which are typically used in builders' hardware.

CHEMICAL COMPOSITION

| Elements | Min (%) | Max (%) |
|--------------|-----------|---------|
| Cu | 57.00 | 59.00 |
| Pb | 1.60 | 2.50 |
| Sn | 0.20 | 0.50 |
| Fe | - | 0.40 |
| Al | - | 0.10 |
| Ni | - | 0.30 |
| Total Others | - | 0.20 |
| Zn | Remainder | |

MECHANICAL PROPERTIES (AS PER TEMPER H110)

| Range (mm) | From | To | UTS Min | PS Min | Elongation Min (%) | Hardness Min (HB) | Hardness Max |
|-----------------------|------|-------|---------|--------|--------------------|-------------------|--------------|
| Round (Dia) | 6.00 | 60.00 | - | - | - | 110.00 | - |
| Hex (A/F) | 6.00 | 60.00 | - | - | - | 110.00 | - |
| Square (A/F) | 6.00 | 60.00 | - | - | - | 110.00 | - |
| Rectangle (Thickness) | 6.00 | 60.00 | - | - | - | 110.00 | - |

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PHYSICAL PROPERTIES

| PHYSICAL PROPERTIES | ENGLISH |
|------------------------|-----------------------------------|
| Density | 0.303 lb/in ³ |
| CTE. linear | 14.4 μ in/in-°F |
| Specific Heat Capacity | 0.0908 BTU/lb-°F |
| Thermal Conductivity | 784 BTU-in/hr-ft ² -°F |
| Melting Point | 1620 – 1650 °F |
| Solidus | 1620 °F |
| Liquidus | 1650°F |

FABRICATION PROPERTIES

| Forming | Suitability |
|-----------------------------------|-------------|
| Machinability (CuZn39Pb3 = 100 %) | 95.00% |
| Capacity for Being Cold Worked | Poor |
| Capacity for Being Hot Worked | Excellent |

TYPICAL USES

- Architecture
- Builders Hardware