# C27000

## DESCRIPTION

C27000. These brasses have relatively good corrosion resistance, are moderately high in strength, and in some forms, have very good ductility. They are available in many forms including rod, bar, sheet, plate and more.

## CHEMICAL COMPOSITION

| Elements | Min (%) | Max (%) |
|---|---|---|
| Cu | 63.00 | 68.50 |
| Pb | - | 0.10 |
| Fe | - | 0.70 |
| Total Others | | 0.30 |
| Zn | Remainder | |

## MECHANICAL PROPERTIES ACCORDING TO UNS J463 (AS PER TEMPER HO2)

| Range (Inch) | From | To | UTS Min (Mpa) | UTS Max (Mpa) | PS Min (Mpa) | Elongation Min (%) | Hardness Min | Hardness Max |
|---|---|---|---|---|---|---|---|---|
| Round (Dia) | 1.5 | 12.00 | 545.00 | 650.00 | - | - | - | - |
| Hex (A/F) | 3.00 | 12.00 | 545.00 | 650.00 | - | - | - | - |
| Square (A/F) | 3.00 | 12.00 | 545.00 | 650.00 | - | - | - | - |

**RAJHANS METALS PRIVATE LIMITED**

# C27000

## LEAD FREE BRASS

## PHYSICAL PROPERTIES

| | |
|---|---|
| Melting Point - Liquidus°F | 1710 |
| Melting Point - Solidus°F | 1660 |
| Densitylb/cu in. at 68°F | 0.306 |
| Specific Gravity | 8.47 |
| Electrical Conductivity% IACS at 68°F | 27 |
| Thermal ConductivityBtu/ sq ft/ ft hr/ °F at 68°F | 67 |
| Coefficient of Thermal Expansion 68-572$10^{-6}$ per °F (68 – 572°F) | 11.3 |
| Specific Heat Capacity Btu/ lb /°F at 68°F | 0.09 |
| Modulus of Elasticity in Tensionksi | 15000 |
| Modulus of Rigidityksi | 5600 |

## FABRICATION PROPERTIES

| Technique | Suitability |
|---|---|
| Soldering | Excellent |
| Brazing | Excellent |
| Capacity for being hot worked | Good |
| Gas Shielded Arc Welding | Fair |
| Coated Metal Arc Welding | Not Recommended |
| Spot Weld | Good |
| Seam Weld | Not Recommended |
| Butt Weld | Good |
| Capacity for Being Cold Worked | Excellent |
| Capacity for Being Hot Formed | Poor |
| Machinability Rating | 30 |

## TYPICAL USES

- Architecture
- Automotive
- Builders Hardware
- Electrical
- Fasteners
- Industrial
- Marine
- Plumbing

**RAJHANS METALS PRIVATE LIMITED**

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