NWB®

*High Performance Bearing Technology*

# C37700 FORGING BRASS



The exceptional hot working characteristics of C37700 makes it the classic alloy for forgings. With outstanding flow characteristics, this alloy can be forged and machined into sophisticated and most complex components. C37700 can also easily be electroplated with various finishes.

## Alternative Specifications

ASTM B-124, B-283
AMS 4614
SAE J461, J463

## Physical Properties

| | |
|---|---|
| Melting Point - Liquidus | 1640 F |
| Melting Point - Solidus | 1620 F |
| Density | 0.305 lb/in$^3$ at 68 F |
| Specific Gravity | 8.44 |
| Electrical Resistivity | 38.4 ohms-cmil/ft at 68 F |
| Electrical Conductivity | 27 %IACS at 68 F |
| Thermal Conductivity | 69.0 Btu · ft/(hr · ft2·°F) at 68F |
| Coefficient of Thermal Expansion | 11.5 ·10$^{-6}$ per °F (68-572 F) |
| Modulus of Elasticity in Tension | 15000 ksi |
| Modulus of Rigidity | 5600 ksi |
| Machinability Rating | 80 |

## Room Temp Tensile & Hardness Data

| TEMPER | SECTION SIZE (INCHES) | TENSILE (KSI) MIN | YIELD (KSI) MIN | ELONGATION IN HD MIN | BRINELL (3000 KG) |
|---|---|---|---|---|---|
| As Extruded | Up to 1 1/2” | 50 | 18 | 25% | - |
| | Over 1 1/2” | 46 | 15 | 30% | - |

## Typical Uses

### Builders Hardware
Door Handles, Decorative Knobs, Furniture Hardware, Various Plumbing Parts, Various Air conditioning and Heating Parts

### Building
Valve Bodies for Refrigeration, Chemicals

### Consumer
Golf Putters, Valve Bodies for Scuba & Propane Spray Tanks, Valve Bodies for Agricultural Spray Tanks, Valve Bodies for LPG Gas and Oxyacetylene

### Electrical
Covers, Fuse Bodies, Connectors

### Other Industrial
Valve Components, Forgings of All Kinds, High Pressure Valve Bodies, Solenoid Bodies, Fittings and Fixtures

## Chemical Composition

| | Cu | Fe | Pb | Zn |
|---|---|---|---|---|
| **min/max** | 58.0-61.0 | .30 | 1.5-2.5 | Rem. |
| **nominal** | 61.5 | - | 2.0 | 38.0 |

Note: Cu + Sum of Named Elements, 99.5% min.

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