

## HIGH TENSILE BRASS BS: 1400 HTB1

A high tensile strength brass conforming to BS 1400 HTB1 CuZn35AlFeMn and BS EN 1982-2008 CC765S CuZn35Mn2Al1Fe1-C. It is generally used for commercial plumbing fittings and other fairly standard water type valves. Copper Alloys specializes in producing large-section forgings in this alloy.



**C52480 Phosphorus Bronze**

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### Equivalent Specifications:

Specifications	BS	EN	IS	JIS	DIN	ISO	Russian
Designation	HTB1	CC765S	-	-	2.034	CuZn35Mn2AlFe1-C	-

### Chemical Composition:

	Cu	Pb	Sn	Zn	Si	Ni	Fe	Al	Mn	Other
Min	55	-	-	-	-	-	0.7	0.5	0.1	-
Max	Rem.	0.5	1	Rem.	0.1	1.0	2.0	2.5	3.0	0.2

### Fabrication Properties:

Joining Technique	Suitability
Soldering	Fair
Brazing	Fair
Oxyacetylene Welding	Poor
Gas Shielded Arc Welding	Poor
Coated Metal Arc Welding	Poor
Machinability Rating	26

**Physical Properties:**

<b>Melting Point – Liquidus °F</b>	1616
<b>Melting Point – Solidus °F</b>	1583
<b>Density lb/cu in. at 68°F</b>	0.301
<b>Specific Gravity</b>	8.33
<b>Electrical Conductivity% IACS at 68°F</b>	22
<b>Thermal Conductivity Btu/ sq ft/ ft hr/ °F at 68°F</b>	49.6
<b>Coefficient of Thermal Expansion 68-21210<sup>-6</sup> per °F (68 – 212°F)</b>	11.3
<b>Specific Heat Capacity Btu/ lb /°F at 68°F</b>	0.09
<b>Modulus of Elasticity in Tension ksi</b>	15000
<b>Magnetic Permeability*</b>	1.09

**Sizes Available:**

<b>TUBES</b>	6.35 mm to 110mm
<b>ROUND WIRES</b>	1 mm to 11mm
<b>ROUND RODS</b>	1.2 to 250 mm
<b>HEX RODS</b>	Min. 5 mm to Max. 60 mm
<b>SQUARE RODS</b>	Min. 4 mm to Max. 60 mm
<b>FLATS</b>	Min. 4 mm thickness and max width of 120mm
<b>PROFILES</b>	As per customer drawings
<b>HOLLOW RODS</b>	Min Bore Size 20mm and Max OD 130mm