

HIGH TENSILE BRASS BS: 1400 HTB3

An all-beta high tensile strength brass with higher mechanical properties than HTB1. The alloy meets the requirements of BS1400 HTB3 CuZn28Al5FeMn and the European norm BS EN 1982-2008 CC762S CuZn25Al5Mn4Fe3-C. The alloy has high strength with excellent wear and abrasion resistance and can be used under high loads.



C52480 Phosphorus Bronze

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Equivalent Specifications:

Specifications	BS	EN	IS	JIS	DIN	ISO	Russian
Designation	HTB3	CC762S	-	-	CuZn35Al5	CuZn25Al5Mn4Fe3-C	-

Chemical Composition:

	Cu	Pb	Sn	Zn	Si	Ni	Fe	Al	Mn	Other
Min	55	-	-	-	-	-	1.5	3	1.5	-
Max	Rem.	0.2	0.2	Rem.	0.1	1.0	3.25	6	4.0	0.2

Fabrication Properties:

Joining Technique	Suitability
Soldering	Poor
Brazing	Poor
Oxyacetylene Welding	Poor
Gas Shielded Arc Welding	Poor
Coated Metal Arc Welding	Good
Machinability Rating	8

Physical Properties:

Melting Point – Liquidus °F	1693
Melting Point – Solidus °F	1625
Density lb./cu in. at 68°F	0.283
Specific Gravity	7.83
Electrical Conductivity% IACS at 68°F	8
Thermal Conductivity Btu/ sq. ft. / ft. hr./ °F at 68°F	20.5
Coefficient of Thermal Expansion 68-572$10^{-6}$ per °F (68 – 572°F)	12
Specific Heat Capacity Btu/ lb. /°F at 68°F	0.09
Modulus of Elasticity in Tension ksi	14200
Magnetic Permeability*	1.09

Sizes Available:

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