TECHNICAL DATASHEET

CuZn40

Revision 13 05 EU

Comparable standards: EN CW509L • UNS C28000 • JIS C3712
Aurubis designations: PNA260 • C280

Description

Muntz Metal, CuZn40 has a nominal composition of 60 % Cu and 40 % Zn. The alloy is mainly used for decorative purposes due to the deep bronze color. Muntz metal is a two phase alloy with a mixture of alpha and beta phase. The alloy is therefore easy to form at high temperatures but has limited cold working formability.

Composition

Cu [%]	Fe [%]	Pb [%]	Zn [%]
59 - 63	0.07 max	0.1 – 0.3	rem.

Physical properties

Melting point [°C]	Density [g/cm³]	Specific heat cap. at 20°C [kJ/kgK]	Electrical cond. [MS/m]	Thermal cond. at 20°C [W/mK]	Mod. of elasticity [GPa]	Coef. of therm exp. at 20°C [10^{-6}/K]
904	8.4	0.38	15	117	102	20.3

The specified conductivity applies to the soft condition only

Mechanical properties

	Tensile strength Rm [MPa]	Yield strength Rp0.2 min [MPa]	Elon-gation A50 min [%]	Hard-ness HV [-]	min bend ratio 90°		min. bend ratio 180°	
					GW	BW	GW	BW
R340	340-420	< 240	> 33	85-115				
R400	400-480	> 200	> 15	110-140				
R470	> 470	> 390	> 6	> 140				

Other tempers are available upon request.
GW bend axis transverse to rolling direction. BW bend axis parallel to rolling direction

Fabrication properties

Cold formability	fair
Hot formability	excellent
Soldering	excellent
Brazing	excellent
Oxyacetylene welding	good
Resistance welding	good
Gas shielded arc welding	fair

Typical uses

Large Sheets, Architectural Panels, Large Architectural Trim, Sheet, Structural, Heavy Plate, Door Frames, Decoration, Hardware