



BRODER METALS GROUP CW112C

Broder Metals Group Ltd.'s CW112C is an age-hardening copper alloy, with good mechanical properties, good corrosion resistance against atmospheric and stress crack attacks, good fatigue strength and thermal resistance.

CW112C is also known by its copper numbers C70250 and C70320 and chemical reference CuNi3Si.

Applications include use in advanced high performance bearing applications, and as valve guides, bushes and valve seats. The high electrical and thermal conductivity of CW112C means that it can also be used for current-carrying formed parts, contact springs / blades, switchgear etc. In the oil & gas sector, CW112C is used for down-hole tools, shear pins, hydraulic valve bodies, pump components and ball valves and mechanical seals.

We stock material as 2" diameter round bar, but other sizes can be offered on short lead times.

CuNi3Si Technical Data

CW112C nominal chemical composition (percent):

	Ni	Si	Fe	Pb	Mn	Others	Cu
Min	2.8	0.8	-	-	-	-	Bal
Max	3.2	1.2	0.1	0.1	0.1	0.5	

CuNi3Si bar mechanical properties:

Tensile Strength		Yield Strength (0.2% Offset)		Elongation in 2" or 4D	Hardness (min)	
Ksi min	MPa min	Ksi min	MPa min	% min	HRC	HB
100	690	82	570	10	13	200

Material is tested at room temperature in longitudinal direction. There is no reduction of area requirement. Material is supplied with a homogeneous microstructure and free from inclusions, porosity & other defects and an ASTM grain size between 5 and 9.

We can carry out other tests to meet customer requirements.

Density is 8.8 g/cm³

Electrical Conductivity is a minimum of 18 MS/m

CW112C is one of a range of copper alloys developed for a specific customer application by Broder Metals Group Ltd and now offered for general use. For our full stock visit our website www.broder-metals-group.com.

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