

CuZn37Pb2

CuZn37Pb2 | C35300

The CuZn37Pb2 alloy offers excellent machinability properties. Furthermore, its high copper content makes it suitable for both cold and hot working processes.

Comparable Standards

EN	UNS
CW606N	C35300

Chemical Composition %

Cu	Zn	Ni	Sn	Fe	Pb	Al
61-62	rem	0.3 max	0.2 max	0.2 max	1.6-2.5	0.05 max

Physical Properties

Density	8.45	(g/cm ³)
Melting Point	885-910	[°C]
Thermal Conductivity	105	(W/mK)
Electrical Conductivity	≥24	%IACS
Modulus of Elasticity		[GPa]
α @ 20°C	20.4	[10 ⁻⁶ /K]

Note: The specified conductivity applies to the soft condition only.

Cp specific heat

α thermal expansion coefficient

Fabrication Properties

Machinability	good
Soft Soldering	excellent
Cold Formability	fair
Hot Formability	excellent
Gas shield arc welding	poor
Resistance welding	fair
Brazing	fair
Gas shield arc welding	poor

Typcial Uses

Watches and watch components, precision mechanical components, and milling plates, key production.

Corrosion Resistance

Machined brass is generally highly resistant to organic substances, as well as neutral or alkaline compounds. However, it is susceptible to stress corrosion cracking, particularly in an ammonia-containing atmosphere and under mechanical stress. Dezincification in warm, acidic waters must also be taken into account.

Mechanical Properties

	Tensile Strength [MPa]	Yield Strength [MPa]	Elongation A50 [%]	Hardness HV [-]
R290	290-370	≤ 200	≥ 30	60-110
R370	370-440	≥ 200	≥ 12	110-140
R440	440-540	≥ 370	-	140-170
R540	≥ 540	≥ 540	-	≥170

Other tempers are available upon request.

$r = x * t$ (thickness $t \leq 0.5\text{mm}$)

GW bend axis transverse to rolling direction. BW bend axis parallel to rolling direction.