

DEZINCIFICATION RESISTANT BRASS – ALLOY 352

Alloy 352 Brass is a copper-zinc-lead alloy with a small addition of arsenic, having a mainly alpha phase structure in the “as used” heat treated condition, with a fine dispersion of lead particles. It has excellent machinability, good cold forming properties, with a high resistance to dezincification.

Typical Applications:

Valves, stopcocks, taps and other plumbing fittings coming in contact with chlorinated water supplies.

Machinability Rating: 100%

Joining Methods:

Soldering: Good
 Brazing: Good
 Welding: oxy-acetylene: Fair
 Welding: gas shielded arc: Fair
 Welding: other: Not recommended

Typical Chemical Composition

Copper	(Cu)	61 – 63%
Lead	(Pb)	1.7 – 2.8%
Arsenic	(As)	0.02 – 0.15%
Zinc	(Zn)	Remainder

Related specifications:

AS 1567	352
ASTM / UNS	C 35330
BS 2874	CZ 132
EN CW602N	CuZn36Pb2As

Fabrication Properties:

Hot working: Poor
 Cold working: Excellent
 Thread rolling: Excellent
 Hot working range: 700°C – 800°C
 Melting range: 875°C – 890°C

Heat Treatment:

Annealing: 500°C – 550°C
 Stress relieving: 250°C – 300°C

Typical Mechanical Properties – Bars and Sections

Condition	0.2 % Proof Stress MPa	Tensile Strength MPa	Elongation %	Hardness HV	Shear Strength MPa
Cold Drawn	120 – 200	280 – 450	20 – 40	80 – 140	260

Typical mechanical properties are for guidance only

Good low temperature mechanical properties.

Dezincification: is a severe corrosion caused by unusually aggressive water supplies to the conventional duplex brasses, resulting in a weak porous structure.