Brass

CuZn20 / CW503L / C24000 / CZ103

Version 1

Reference standard: EN 12166

Symbol	Number	Element	Cu	Al	FE	Ni	Pb	Sn	Zn	Bal.	Density g/cm³
CuZn20	CW503	Min %	79.0		-	-	-	-	Rem	-	8.7
		Max %	81.0	0.02	0.05	0.3	0.05	0.1	-	0.1	

Brass wire is a copper zinc alloy and is available in a range of alloys from 90% copper / 10% zinc to 63% copper / 37% zinc. The higher the percentage of zinc in the alloy the greater the cold working strength, whilst the higher the copper content the greater the ductility. Brass wire is manufactured in flat, round and square section in a full range of sizes and tempers to meet customer requirements.

Typical Tensile Strength N/mm2				
Size Range	Soft	¼ Hard	½ Hard	Hard
0.1-0.5mm	310-410	-	-	600min
0.5-1.5mm	300-400	400-500	480-580	580min
1.5-4.0mm	290-390	370-470	450-550	540min
4.0–8.0mm	-	-	430-530	-
4.0–20.0mm	260-360	360-460	-	-

Physical Properties:

- Resistivity: 0.053 (Ω x mm²/m)
- Temperature coefficient of resistance at 20-100°C (1/K): 0.0025
- Elongation at soft temper: >30%

Typical applications:

- Jewellery and ornamental trims
- Components for the electrical industry
- Industrial fasteners
- Coinage, medals
- Resistance wire

Tolerances:

<0.25mm	±0.005mm
0.25-0.50mm	±0.008mm
0.50-1.00mm	±0.012mm
1.00-2.00mm	±0.02mm
2.00-4.00mm	±0.03mm

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