3.4. CuZn33



Alloy Designation	
EN	CuZn33
DIN CEN/TS 13388	CW506L
UNS	C26800

Chemical Composition (Balance) Weight percentage		
Cu	67	%
Zn	Rest	%

Characteristics

CuZn33 combines excellent cold forming properties with good mechanical strength. CuZn30 has good hot forming properties and excellent soldering and brazing properties. Due to the outstanding deep drawing properties CuZn30 called "deep-draw" or "cartridge" brass.

Main Applications

Metal goods, Deep drawn parts, Components for the electrical industry, stamped parts, Connectors.

Mechanical Properties (EN 1652)						
Temper	Tensile Strength	Yield Strength Minimum	Elongation Minimum	Hardness	Ben 9	•
	Rm	Rp _{0.2}	A _{50mm}	HV *	gw rel. Bending	bw g Radius R/T
	MPa	MPa	%	HV	Strip Thickne	ss ≤ 0.50mm
R280	280 380	≤ 170 *	44	55 95	0	0
R350	350 430	170 *	23	95 125	0	0
R420	420 500	300 *	6	125 155	0	0
R500	≥ 500	450 *	3	≥ 155	0,5	0,5

^{*} only for information

Physical Properties Typical values in annealed temper at 20 °C			
Density		8.47	g/cm³
Thermal expansion coefficient	20 300 °C	19.9	10 ⁻⁶ /K
Specific heat capacity		0.377	J/(g·K)
Thermal conductivity		121	W/(m⋅K)
Electrical conductivity	MS/m	15	MS/m
Electrical conductivity	IACS	26	%
Thermal coefficient of electrical resistance	(0 100 °C)	1.6	10 ⁻³ /K
Modulus of elasticity	GPa	112	GPa

Fabrication Properties *	
Cold Forming Properties	Excellent
Machinability (Rating 20)	Less suitable
Electroplating Properties	Excellent
Hot Tinning Properties	Excellent
Soft Soldering, Brazing	Excellent
Resistance Welding	Good
Gas Shielded Arc Welding	Fair
Laser Welding	Less suitable

^{*} For more details call our technical service

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