

3.6 CuZn36 - C27000 - CW507L

Application Range

Basic material for electrical components, installation parts in the electrical industry. Zinc content proportionally reduces metal cost.

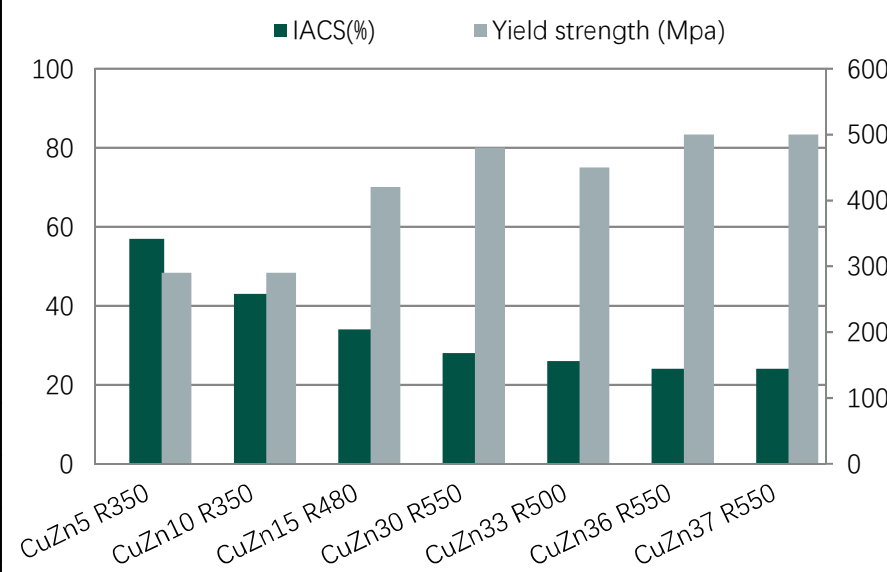
Physical Properties

Chemical Position (reference value) %

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Density *		g/cm ³		8.45				Cu	63.5 - 65.5
Thermal conductivity *		W/(m·k)		121				Zn	Rest
Electr. conductivity ***		MS/m		14				Ni	max. 0.3
Electr. conductivity ***		IACS (%)		24				Sn	max. 0.1
Thermal expansion c. **		10 ⁻⁶ K		20.2				Fe	max. 0.05
Modulus of elasticity *		Gpa		110					

Tensile strength	Yield strength	Tensile strength	Yield strength	Elongation	Hardness	Electr. conductivity	Bendability	
		T.S. min. - max. MPa	Rp 0.2 min. MPa				R/t ^{1) 2)} 90°	
				A50 min. %	(reference value) HV	MS/m	GW	BW
							Strip thickness ≤0.5mm	Strip thickness ≤0.5mm
Cold rolled	R300	300 - 370	(max. 180)	38	55 - 105	14	0	0
Cold rolled	R350	350 - 430	(170)	19	95 - 125	14	0	0
Cold rolled	R410	410 - 490	(300)	8	120 - 155	14	0	0
Cold rolled	R480	480 - 560	(430)	3	150 - 180	14	0.5	2
Cold rolled	R550	min. 550	(500)	-	min. 170	14	1	3
Cold rolled	R630	min. 630	(600)	-	min. 190	14	-	-

Comparison of yield strength and electrical conductivity (IACS%) of selected brass alloys



Alloy	IACS(%)	Yield strength (Mpa)
CuZn5 R350	~58	~300
CuZn10 R350	~45	~300
CuZn15 R480	~35	~450
CuZn30 R550	~28	~500
CuZn33 R500	~25	~480
CuZn36 R550	~22	~520
CuZn37 R550	~22	~520

*Reference values at room temperature

**Between 20 and 300 °C

*** Values for the lowest temper class

¹⁾ $r = x \cdot t$ (strips up to $t = 0.50$ mm)

²⁾ Sample width = 10 mm / bending at smaller bending widths on request (Evaluation accordi

³⁾ Valid only as thermal stress relieved qualities

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