



Brand Name	ISA-CON®550				
Material Code	CW106C				
Abbreviation	CuCr 1Zr				
Chemical Composition (mass components) in %. Average values of alloy components					
Cu Rem.	Cr 0.5-1.5	Zr 0.02-0.25			

PRELIMINARY VERSION

Features and Application Notes

The ISA-CON® product family is renowned by its unique combination of mechanical strength and electrical conductivity.

ISA-CON®550 achieves a mechanical strength of 500 MPa at 80% IACS in hard conditions. It has corrosion resistance and can be coated with nickel, tin or silver.

ISA-CON®550 has good flex live properties and high softening resistance for use at higher temperatures.

Application examples: prematerial for conductive fasteners like screws and bolts.

Form of Delivery

ISA-CON®550 is supplied in the form of round wires in the range of 1.0 to 12 mm Ø. Flat wires and bigger diameters are available on request.

Electrical Properties in Hard Condition

Temperature coefficient of electrical resistance between	Electrical conductivity	Electrical resistance	
0°C and +100°C 10 ⁻⁶ /K	+20°C	+20°C	
approx. +3,000	% IACS	m/Ω mm²	μΩ x cm
	≥80	≥46	≤2.18

Strength Properties at +20°C in Hard Condition

Tensile Strength		Elongation (L ₀ = 100 mm) % at 5.25 mm diameter	Modulus of elasticity
MPa	psi	%	GPa
≥500	72519	>5	135

Physical Characteristics (Reference Values)

Density at +20°C		Melting point	Specific heat at +20°C	Thermal conductivity at +20°C	Average linear thermal expansion coefficient between +20°C and +100°C	Thermal EMF against copper at +20°C
g/cm³	lb/cub in	°C	J/g K	W/m K	10⁻⁶/K	μV/K
8.9	0.32	1,080	0.38	325	18.5	±1.0



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