

Alloy Designation	
EN	Cu-HCP / CW021A
DIN	SE-Cu 57 / 2.0070 DIN EN 13599
UNS	C10300 ASTM B152
JIS	C1030

Chemical Composition		
Cu	min. 99.95	%
P	0.002-0.007	%

Characteristics
Cu-HCP is a high-conductivity(about 98% IACS), phosphorus-deoxidized copper with a low residual P level that optimises weldability while only slightly reducing conductivity versus oxygen-free grades. The alloy combines very good electrical and thermal conductivity with excellent weldability, brazability and solderability, plus strong resistance to hydrogen embrittlement. It also offers excellent hot/cold formability and good corrosion resistance

Main Applications
Longitudinal welded co-axial cables Submarine Cable Strips
Wave Guide Tubing Thermostatic Control Tubing
Busbars clad products Applications Requiring Good Weldability
Base plates for power modules pressure vessels

Physical Properties (Reference values at room temperature)		
Density	g/cm ³	8.94
Electrical conductivity	IACS%(20°C)*	98
Modulus of elasticity	KN/mm ²	115
Coefficient of thermal expansion	10 ⁻⁶ /K	17.7
Thermal conductivity	W/(m*K)	385

*value for the lowest temper class

Mechanical Properties							
TEMPER		Tensile Strength Mpa	Yield Strength Mpa	Elongation %	Hardness Hv	Bending Test(90°) GW BW	
R220	H00	220 - 275	max. 140	min. 33	40 - 70	0	0
R240	H01	235 - 300	min. 180	min. 8	65 - 95	0	0
R290	H04	290 - 360	min. 250	min. 4	90 - 110	0	0
R360	H10	min. 360	min. 320	min. 2	min. 110	0	0.5

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