Cu-OF

KEMPER
DRIVING PROGRESS

Standard Designation

EN CW008A / UNS C10200

Chemical Composition

Cu [%]			
min. 99.95			free of oxygen

Description / Applications

Cu-OF is an oxygen-free copper alloy produced without the addition of deoxidizing agents. It is well suited for cold forming and thermal joining processes.
Applications: electrical devices, switching elements, connectors

Physical Properties[1)]

Density	8.9 g/cm³	Thermal expansion coefficient	$17.7 \cdot 10^{-6}$/K
Electrical conductivity	58 m/Ω·mm² 100 % IACS[2)]	Modulus of elasticity	127 GPa
Thermal conductivity	392 W/m·K		

[1)] Guideline values for soft temper, measured at room temperature

[2)] IACS = International Annealed Copper Standard

Processing information

Weldability	good	Stress corrosion cracking	none
Solderability	good		

Mechanical properties

Temper	Tensile Strength Rm [MPa]	Yield Strength Rp0,2 [MPa]	Elongation A50 [%]	Hardness HV	Bendability[1)]			
					90° r/t[2)]		180° r/t[2)]	
					GW[3)]	BW[4)]	GW[3)]	BW[4)]
R220/H40	220 - 260	max. 140	min. 33	40 - 70	0	0	0	0
R240/H65	240 - 300	min. 180	min. 8	65 - 95	0	0	0.5	0.5
R290/H90	290 - 360	min. 250	min. 4	90 - 110	0	0	0.5	1.5
R360/H110	min. 360	min. 320	min. 2	min. 110	0	0	1	3

[1)] The r/t values are valid for a strip thickness up to 0.5 mm (without crack). The data refer to rolled-to-temper material and a width of the bending area of 5 mm.
V-shape bend test according to ISO 7438

[2)] r = inner radius, t = thickness

[3)] GW = good way

[4)] BW = bad way

The details in this datasheet are exclusively meant for general information only. They correspond to the state of knowledge at the time of issue and cannot replace the examination by our customers. Liability cannot be derived from the information.

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