

Standard Designation

EN not standardized / UNS C15100

Chemical Composition

Cu	Zr [%]		
Balance	0,05 - 0,15		

Description / Applications

KHP[®]151 is a CuZr alloy. KHP[®]151 has a very high electrical conductivity, a higher strength than pure copper and features a good softening resistance.

Applications: connectors, electronics

Physical Properties¹⁾

Density	8.9 g/cm ³	Thermal expansion coefficient	17,6·10 ⁻⁶ /K
Electrical conductivity	55 m/Ω·mm ² = 95 %IACS	Modulus of elasticity	121 GPa
Thermal conductivity	360 W/m·K		

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

³⁾ 1 GPa = 1 kN/mm²

²⁾ IACS = International Annealed Copper Standard

Processing information

Weldability	good	Stress corrosion cracking	none
Solderability	very 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⁾
R255	255-290	min. 60	min. 35	70-100	0	0	0	0
R275	275-310	min. 180	min. 11	80-110	0	0	0,5	0,5
R295	295-350	min. 240	min. 4	90-120	0	0	0,5	0,5
R325	325-385	min. 310	min. 2	95-125	0,5	0,5	0,5	1
R365	365-425	min. 350	min. 2	105-135	0,5	0,5	1	1
R405	405-450	min. 390	min. 1	115-145	1		-	2
R440	440-490	min. 425	min. 1	min. 125	2,5	3	3	3,5

¹⁾ The r/t values are valid for a strip thickness up to 0.6 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.

Rev.: 04/2019

www.kemper-olpe.de