

# Material data sheet

## ALBROMET-W130

<b>ALBROMET-W130</b>	<b>Low-alloy copper, Beryllium copper</b>						
Material properties	Hardened beryllium copper alloy with extremely high hardness and strength, relatively good conductivity.						
Application examples	Electrodes for resistance and flash butt welding technology, non-magnetic and non-sparking applications, molds, molds for plastics, mold cores, mold inserts, hot runner nozzles.						
Machining notes	<p>When hardened, machine with carbide-tipped tools (P quality). Alternative: Solution-annealed (soft) or semi-hard pre-machining with HSS or carbide, then hardening according to instructions and finishing. Spark erosion possible.</p> <p>Due to the beryllium content, protective measures are required to avoid the occurrence of dust/vapors. Process wet, ensure good cooling.</p>						
Typical analysis	<table><tr><td>Be</td><td>2,0 %</td></tr><tr><td>Others</td><td>0,5 % max.</td></tr><tr><td>Cu</td><td>Balance</td></tr></table>	Be	2,0 %	Others	0,5 % max.	Cu	Balance
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Cu	Balance						
Standards/Specifications	CuBe2 EN CW 101 C DIN 2.1247 Typ A 4/2						
Delivery formats	Forged parts, Extruded rods, Semi-finished products, Finished parts based on drawings						

### Mechanical and physical properties

Hardness Brinell (HB 30)	340 – 390
Tensile strength $R_m$	1.250 N/mm <sup>2</sup>
Yield strength $R_{p0.2}$	1.000 N/mm <sup>2</sup>
Elongation at break A5	3 %
Density	8,4 g/cm <sup>3</sup>
Softening temperature	~ 300° C
Elasticity modulus E	135 kN/mm <sup>2</sup>
Mean linear coefficient of thermal expansion	17,0 10 <sup>-6</sup> /K
Thermal conductivity at 20° C	~ 130 W/m*K
Electrical conductivity at 20°C	18 m/Ohm*mm <sup>2</sup>

These data are based on information provided by our supplier, all changes reserved. The mechanical strength values are typical standard values and depends on the measurement and the production method. (Version: 07/2024).