

# Material data sheet

## ALBROMET-W130

<b>ALBROMET-W130</b>	<b>High-strength copper alloy, Beryllium copper</b>
Material properties	Hardened beryllium copper alloy with extremely high hardness and strength, relatively good conductivity. Very good spring and fatigue properties, good corrosion resistance, non-sparking
Application examples	Moulds, plastic mould construction, injection moulding tools, mould cores, mould inserts, hot runner nozzles, jaws, holders, welding fixtures, electrodes for resistance and flash butt welding technology, non-magnetic components, non-sparking tools High-strength and corrosion-resistant components in marine technology and aviation
Machining notes	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. Due to the beryllium content, protective measures are required to avoid the occurrence of dust/vapors. Process wet, ensure good cooling.
Typical analysis	Be 2,0 % Others 0,5 % max. 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).