

# Material data sheet

## ALBROMET-W164

<b>ALBROMET-W164</b>	<b>Low-alloy copper</b>
Material properties	Innovative, beryllium-free, high-strength copper alloy with an ideal combination of properties such as high thermal conductivity, hardness and wear resistance. Beryllium-free alternative to CuBe2.
Application examples	Ideal material for injection molds, blow molds, hot runner systems and other applications in plastic mold making.
Machining notes	The material is generally supplied in hardened and tempered condition and can be machined with standard carbide-tipped tools. Spark erosion possible to a limited extent: Due to the high conductivity, higher electrode erosion and longer run time than with steel.
Typical analysis	CuNiCrSi exact analysis is not disclosed
Standards/Specifications	Not standardized
Delivery formats	Forged parts, semi-finished products, finished parts according to drawing

### Mechanical and physical properties

Hardness Brinell (HB 30)	260 – 285
Tensile strength $R_m$	860 N/mm <sup>2</sup>
Yield strength $R_{p0.2}$	720 N/mm <sup>2</sup>
Elongation at break A5	5 %
Density	8,8 g/cm <sup>3</sup>
Softening temperature	~ 450° C
Elasticity modulus E	144,8 kN/mm <sup>2</sup>
Mean linear coefficient of thermal expansion	15,7 10 <sup>-6</sup> /K
Thermal conductivity at 20° C	~ 164 W/m*K
Electrical conductivity at 20°C	20 m/Ohm*mm <sup>2</sup> 35 % IACS

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).