Material data sheet

ALBROMET-W200

ALBROMET-W200	High-strength copper alloy, beryllium-free
Material properties	An innovative, beryllium-free copper alloy with very high thermal conductivity, high electrical conductivity, moderate strength and good wear resistance; non-magnetic, good corrosion resistance, a beryllium-free alternative to CuCo2Be or ALBROMET-W240
Application examples	Plastic mould making, injection moulding tools, toolmaking, mould making, mould inserts for applications with thermal requirements, electrode holders, welding technology (electrodes), die castings, energy technology, guide rails and sliding elements for applications subject to high temperatures
Processing	In the precipitation-hardened state, it can be easily machined using carbide tools. weldable with the same material; EDM is possible to a limited extent (due to its high electrical conductivity, electrode wear is greater than with steel)
Typical analysis	<table><tr><td>Cu</td><td>Ni</td><td>Cr</td><td>Si</td><td>Pb</td><td>Others</td></tr><tr><td>Remaining</td><td>2 - 4 %</td><td>< 0.5 %</td><td>0.4 - 0.8 %</td><td>< 0.02 %</td><td>< 0.5 %</td></tr></table>
Standards/Specifications	CuNiCrSi, ~ 2.0855, ~ 2.0857 (DIN 17665 withdrawn, replaced by:) ~ CW111C, ~ CW112C (DIN EN 12163, DIN EN 12164, DIN EN 12167, DIN EN 12420) ~ C18000; RWMA Class 3 Certified for use in the food industry (certificate of compliance)
Delivery formats	Plates, round bars, flat bars, square bars, cut to length pieces; finished parts according to drawings

Mechanical and physical properties	forged / extruded / pressed
Hardness Brinell (HBW 10/3000)	190 – 220
Hardness Vickers (HV10, converted)	200 - 230
Tensile strength R_m	650 - 850 MPa
Yield strength $R_{P0,2}$	> 500 MPa
Elongation at break A_5	> 10 %
Elasticity modulus E	140 GPa
Density	8.7 g/cm^3
Mean linear coefficient of thermal expansion	16.0 10^{-6} /K
Thermal conductivity at 20° C	~ 200 W/m*K
Electrical conductivity at 20 °C	23 - 28 m/Ohm*mm²; 39 - 48 % I.A.C.S
Softening temperature	> 480 °C a significant change in strength values occurs
Melting range	Solidus ~ 1030 °C and Liquidus ~ 1070 °C

These data are based on information provided by our supplier, all changes reserved. The mechanical strength values are typical standard values and depend on the dimension and the production method (Status: 07/2026).

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