Material data sheet

ALBROMET-A380

ALBROMET-A380	Aluminum bronze
Material properties	Maximum hardness (brittle-hard), high abrasion resistance, excellent compressive strength, outstanding sliding properties, not suitable for applications involving impact or shock loads, low nickel content
Application examples	Sliding partners for hardened steel grades; forming tools for bending, embossing, profiling and deep drawing of steel sheets and steel tubes, particularly stainless steel; rollers, dies
Processing	Machining only with carbide tools; polishes very well; weldable only to a limited extent
Typical analysis	<table><tr><td>Cu</td><td>Al</td><td>Fe</td><td>Mn</td><td>Pb</td><td>Others</td></tr><tr><td>Remaining</td><td>< 14 %</td><td>< 5.5 %</td><td>< 3,0 %</td><td>< 0.02 %</td><td>< 2 %</td></tr></table>
Standards/Specifications	non-standardised (DIN EN 12163, DIN EN 12164, DIN EN 12420) (DIN EN 1982) ~ C62500 (ASTM B505)
Delivery formats	Plates, round bars, cut to length pieces; finished parts according to drawings

Mechanical and physical properties	forged / pressed	cast
Hardness Brinell (HBW 10/3000)	360 – 390	360 – 390
Hardness Rockwell (HRC, converted)	38 - 42	38 - 42
Tensile strength R_m	700 - 1100 MPa	700 - 1100 MPa
Yield strength $R_{P0,2}$	> 480 MPa	> 480 MPa
Elongation at break A_5	0.5 %	0.5 %
Elasticity modulus E	120 GPa	110 GPa
Compressive strength	1,500 MPa	1,200 MPa
Density	7.2 g/cm^3	
Mean linear coefficient of thermal expansion	17.5 10^{-6}/K	
Thermal conductivity at 20° C	34 W/m*K	
Electrical conductivity at 20 °C	5.8 m/Ohm*mm^2; 10 % I.A.C.S	
Softening temperature	> 300 °C a significant change in strength values occurs	
Melting range	Solidus ~ 1045 °C and Liquidus ~ 1060 °C	
Magnetic permeability	1.03 H = 100 Oe	

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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