

# Material data sheet

## ALBROMET-A220Ni

<b>ALBROMET-A220Ni</b>	<b>Aluminum bronze</b>
Material properties	Hard and tough construction and sliding material with high resistance to corrosion, cavitation and mechanical wear. Low permeability.
Application examples	Propellers, drive parts, pump housings, valve housings, impellers, special parts in ships and the chemical industry. Compression pieces and bearings, worm wheels and valve guides.
Machining notes	Can be machined perfectly with carbide tools. Limited weldability due to heat treatment (hardness reduction)
Typical analysis	Al 10,0 % Fe 4,0 % Ni 5,0 % Mn 1,5 % Others 0,5 % max. Cu Rest
Standards/Specifications	CuAl10Ni5Fe4 EN CW 307 G DIN 17665/2.0966 ASTM C63200 / C63000
Delivery formats	Forged and cast parts, Semi-finished products, Finished parts based on drawings

Mechanical and physical properties	forged	extruded / drawn	continuous casting
Hardness Brinell (HB 30)	180 – 220	200 – 240	170 – 190
Tensile strength R <sub>m</sub>	700 N/mm <sup>2</sup>	680 – 740 N/mm <sup>2</sup>	Min. 650 N/mm <sup>2</sup>
Yield strength R <sub>p0,2</sub>	360 N/mm <sup>2</sup>	480 – 530 N/mm <sup>2</sup>	Min. 221 N/mm <sup>2</sup>
Elongation at break A5	> 12 %	> 8 %	Min. 13 %
Density	7,7 g/cm <sup>3</sup>		
Compressive strength	1.000 MPa		
Elasticity modulus E	127,5 kN/mm <sup>2</sup>		
Mean linear coefficient of thermal expansion	16,0 10 <sup>-6</sup> /K		
Thermal conductivity at 20° C	45 W/m*K		
Electrical conductivity	5,22 m/Ohm*mm <sup>2</sup>		
Temperature resistance	< 300° C up to clear change in strength value		
Magnetic permeability	1,07 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 depends on the measurement and the production method. (Version: 07/2024).