ALBROMET 220 Ni

Data sheet aluminiumbronze

Material properties:	Hard and tough construction and sliding material with high resistance to corrosion, cavitation and mechanical wear. Low permeability.
Application examples:	Propeller, drive components, pump bodies, valve bodies, rotors, special components for ships and the chemical industry. Compression pieces and bearings, worm wheels and valve guides.
Machining tips:	Chipping aboveboard possible with carbide tools. Because of the heat treatment (hardness reduction), wellding is restricted possible.
Typical analysis:	Al 10,0 % Fe 4,0 % Ni 5,0 % Mn 1,5 % Others 0,5 % max. Cu Balance
Standards/Specifications:	CuAl10Ni5Fe4 EN CW 307 G DIN 17665/2.0966 ASTM C63200
Delivery formats:	Forged parts, Extruded rods, Semi-finished products, Finished parts based on drawings

Mechanical and physical properties:	**Forged**	**Drawn / Extruded**	**continuous casting**
Hardness Brinell (HB 30)	200 - 220	200 - 240	170 - 190
Tensile strength Rm	700 N/mm²	680 - 740 N/mm²	min. 650 N/mm²
Yield strength Rp 0,2	360 N/mm²	480 - 530 N/mm²	min. 280 N/mm²
Elongation at break A5	> 12 %	> 8 %	min. 13 %
Density	7,6 g/cm³		
Compressive strength	1000 Mpa		
Elasticity modulus E	127,5 KN/mm²		
Mean linear coefficient of thermal expansion	16,0 10^{-6}/K		
Thermal conductivity at 20° C	45 W/m x k		
Electrical conductivity	5,22 m/Ohm*mm²		
Temperature resistance	< 300° C up to the clear change in strength value		
Magnetic Permeability	1,07 H = 100 Oe		