

FormAl®220Ni

Aluminium bronze with excellent mechanical properties. Hard and tough construction and sliding material with high resistance to corrosion, cavitation and mechanical wear, good hardness and low coefficient static friction.

APPLICATION

- _ Propellers
- _ Drive components
- _ Pump bodies
- _ Valve bodies
- _ Rotors
- _ Special components for ships and chemical industry
- _ Compression pieces and bearings
- _ Worm wheels and valve guides

PHYSICAL PROPERTIES

Electrical conductivity	5,22	m/Ω mm ²
Thermal conductivity 20°C	45	W/m °K
Mean linear coefficient of thermal expansion	16	10 ⁻⁶ /K
Specific heat 100°C	420	J/kg °K
Magnetic permeability	1,07	H=100 Oe
Temperature resistance	300	°C
Density	7,7	g/cm ³
Compressive strenght	1000	Mpa

reference values

CHEMICAL COMPOSITION

(typical)

Aluminium	10 %
Iron	4,0 %
Nichel	4,0 %
Manganese	1,5 %
others	max 0,5 %
copper	balance %

SPECIFICATION AND STANDARDS

CuAl10NiFe4 - EN CW 307G
DIN 17665/2.0966
ASTM C63200 - C63000

DELIVERY FORMATS

Flat bars
Round HCC
Extruded rods
Rings upon request
Forged parts upon request

MECHANICAL PROPERTIES

		Forged	Drawn/Extruded	Continuous Casting
Hardness	HB	200 - 220	220 - 240	170 - 190
Tensile strength Rm	N/mm ²	700	680- 740	650
Yield strenght Rp 0,2%	N/mm ²	360	480 - 530	280
Elongation at break A5	%	> 12	> 8	> 5
Elasticity modulus E	GPa	127,5		

reference values

