

Technical Data Sheet

AMPCOLOY® 972

Extruded and drawn rectangular and square bars

Nominal composition:

Chromium	(Cr)	1.0%
Zirconium	(Zr)	0.1%
Others		max. 0.2%
Copper	(Cu)	balance

Nearest international specifications:

EN	CW 106C	
D	DIN 44759 A 2/2	17666 W.Nr. 2.1293
F	AFNOR	UC1Zr
GB	BS	
USA	CDA RWMA	C18150, C18200, C18400 Class 2, CuCr1Zr

Mechanical and physical properties	Units	Rectangular bars		Square bars			
		Thickn./width	≤20 / ≤50 mm	20 - 60 / 50-150 mm	≤ 20 mm	20 - 45 mm	45 - 100 mm
Tensile strength Rm	MPa		440	370	470	440	370
Yield strength Rp 0.5	MPa		350	270	440	350	270
Elongation A5	%		10	18	8	10	18
Brinell hardness	HBW 10/1000		145	125	155	145	125
Rockwell hardness	HRB		80	72	83	80	72
Modulus of elasticity E	GPa		120	120	120	120	120
Density ρ	g / cm ³		8.9				
Coefficient of expansion α	10 ⁻⁶ / K		17				
Thermal conductivity λ	W / m · K		320				
Electrical conductivity γ	m / Ω · mm ²		51				
Electrical conductivity	% I.A.C.S.		86				
Specific heat Cp	J / g · K		0.38				

Assurances given with respect to properties or uses are subject to written approval from AMPCO METAL.

AMPCOLOY® 972 is a precipitation hardening copper-base alloy. In the heat treated condition, this alloy retains the mechanical properties together with a good ductility in the range of 300-500°C. High electrical conductivity and high mechanical properties are attributes of this versatile alloy.

APPLICATIONS:

Resistance welding tips and electrodes
 Parts for the energy engineering
 Damper finger segments
 Damper rings