

Technical Data Sheet

AMPCOLOY[®] 972

Extruded and drawn rectangular and square bars



Nominal composition:

Chromium	(Cr)	1.00%
Zirconium	(Zr)	0.1%
Others		max. 0.2%
Copper	(Cu)	balance

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 Class2, CuCr1Zr

Mechanical and physical properties	Units	Rectangular bars		Square bars		
		Thick. / width (mm)	≤0.78" / ≤2"	0.78" – 2.36" / 2" – 6"	≤0.78"	0.78" – 1.77"
		Nominal Values				
Tensile strength Rm	KSI	64	54	68	64	54
Yield strength Rp 0.5	KSI	51	39	64	51	39
Elongation in 2"	%	10	18	8	10	18
Brinell hardness	BHN 10	145	125	155	145	125
Rockwell hardness	HRB	80	72	83	80	72
Modulus of elasticity E	KSI	17400	17400	17400	17400	17400
Density ρ	LBS / IN ³	0.32				
Coefficient of expansion α	IN / IN / °F	9.44 · 10 ⁻⁶				
Thermal conductivity λ	CGS	0.765				
Electrical resistivity γ (1mm ² section)	Microhms/ m	19.6				
Electrical conductivity	% I.A.C.S.	86				
Specific heat Cp	BTU / LB · °F	0.091				

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