

Technical Data Sheet

AMPCOLOY[®] 972

Extruded and drawn rounds



Nominal composition:

Chromium	(Cr)	1.0%
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	Ø 10 - 25 mm	Ø 25 - 50 mm	50 - 120 mm *
Tensile strength Rm	MPa	520	480	465
Yield strength Rp 0.5	MPa	466	413	410
Elongation A5	%	20	20	18
Brinell hardness	HB 10	152	142	125
Rockwell hardness	HRB	82	79	72
Modulus of elasticity E	GPa	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.

* Over 70 mm diameter extruded only

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
- Electrode caps for the automotive industry
- Tong arms for welding robots
- Electrode holders
- Parts for the energy engineering
- Press parts