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

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**	**Ø 10 - 25 mm**	**Ø 25 - 50 mm**	**Ø 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	HBW 10/1000	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 · mm²	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