

Technical Data Sheet

AMPCOLOY[®] 972

Forgings

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	Nominal Values
Tensile strength Rm	MPa	440
Yield strength Rp 0.5	MPa	350
Elongation A5	%	18
Brinell hardness	HBW 10/1000	135
Rockwell hardness	HRB	75
Modulus of elasticity E	GPa	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 wheels
 Moulds for the continuous casting of steel or aluminium
 Sliding contacts
 Short-circuit rotor rings
 Parts for the energy engineering
 Electrode beam