Technical Data Sheet

AMPCOLOY® 972

Forgings

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	**RWMA**	**C18150, C18200, C18400 Class 2, CuCr1Zr**

Mechanical and physical properties	Units	Nominal Values
Tensile strength Rm	**KSI**	**64**
Yield strength Rp 0.5	**KSI**	**51**
Elongation in 2"	**%**	**18**
Brinell hardness	**BHN 10**	**135**
Rockwell hardness	**HRB**	**75**
Modulus of elasticity E	**KSI**	**17000**
Density ρ	**LBS / IN³**	**0.32**
Coefficient of expansion α	**IN / IN / °F**	**$9.44 \cdot 10^{-6}$**
Thermal conductivity λ	**GCS**	**0.765**
Electrical resistivity γ (1mm² 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 wheels
Moulds for the continuous casting of steel or aluminium
Sliding contacts
Short-circuit rotor rings
Parts for the energy engineering
Electrode beam