Technical Data Sheet

AMPCOLOY® 88

Extrusions

Nominal composition:

Cobalt + Nickel	(Co + Ni)	3.0%
Beryllium	(Be)	0.5%
Others		max. 0.5%
Copper	(Cu)	balance

Specifications:

ISO	**NFA 82100**	
EN	**CW 103C**	**Typ A3/1**
D	**DIN 17666**	**W. Nr. 2.1285**
F	**AFNOR**	**UK2Be**
GB	**BS**	
USA	**CDA**	**C17500**
	RWMA	**Class 3**

Mechanical and physical properties	Units	Nominal Values
Tensile strength Rm	**KSI**	**129**
Yield strength $R_{p\ 0.5}$	**KSI**	**99**
Elongation in 2"	**%**	**14**
Brinell hardness	**BHN 30**	**270**
Modulus of elasticity E	**KSI**	**18850**
Density ρ	**LBS / IN³**	**0.315**
Coefficient of expansion α	**IN / IN / °F**	**$9.44 \cdot 10^{-6}$**
Thermal conductivity λ	**CGS**	**0.549**
Electrical resistivity γ (1mm² section)	**Microhms/ Meter**	**33.3**
Electrical conductivity	**% I.A.C.S.**	**52**
Specific heat Cp	**BTU / LB · °F**	**0.1**

Assurances given with respect to properties or uses are subject to written approval from AMPCO METAL.

APPLICATIONS:

The applications are generally the same as AMPCOLOY® 95. Although both alloys are identically classified, AMPCOLOY® 88 finds its own applications due to its slightly higher mechanical properties. AMPCOLOY® 88 is principally used for flash welding dies, welding wheels, electrodes for mesh welding, damper ring segments and damper rings for generators and parts for injection molding of plastic.

WARNING

Since the alloy contains 0.5 % Beryllium, it is recommended that during any operation which is liable to create dust or fumes (for example dry grinding, polishing or welding) precautions should be taken to ensure there is no inhalation or exposure to eyes or skin. Conventional machining (for example milling and turning) is not generally considered hazardous.