

# Technical Data Sheet

## AMPCOLOY<sup>®</sup> 88

### Forgings



#### 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 RWMA	C17500 Class 3

Mechanical and physical properties	Units	Nominal Values
Tensile strength Rm	KSI	129
Yield strength Rp 0.5	KSI	99
Elongation in 2"	%	14
Brinell hardness	BHN 30	270
Modulus of elasticity E	KSI	18850
Density ρ	LBS / IN <sup>3</sup>	0.315
Coefficient of expansion α	IN / IN / °F	9.44 · 10 <sup>-6</sup>
Thermal conductivity λ	CGS	0.549
Electrical resistivity γ (1mm <sup>2</sup> 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<sup>®</sup> 95. Although both alloys are identically classified, AMPCOLOY<sup>®</sup> 88 finds its own applications due to its slightly higher mechanical properties. AMPCOLOY<sup>®</sup> 88 is principally used for flash welding dies, welding electrodes for mesh welding, moulds for low pressure die casting, moulds for the continuous casting, plunger tips in aluminium die casting machines 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.