

Technical Data Sheet

AMPCOLOY[®] 88

Forgings

Nominal composition:

Cobalt + Nickel	(Co + Ni)	2.5%
Beryllium	(Be)	0.5%
Others		max. 0.5%
Copper	(Cu)	balance

Specifications:

ISO	NFA 82100	
EN	CW 104C	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	MPa	760
Yield strength Rp 0.5	MPa	550
Elongation A5	%	14
Brinell hardness	HBW 10/3000	250
Rockwell hardness	HRC	25
Modulus of elasticity E	GPa	130
Density ρ	g / cm ³	8.75
Coefficient of expansion α	10 ⁻⁶ / K	17
Thermal conductivity λ	W / m · K	230
Electrical conductivity γ	m / Ω · mm ²	28
Electrical conductivity	% I.A.C.S.	48
Specific heat Cp	J / g · K	0.42

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, moulds for low pressure die casting, moulds for continuous casting 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.