Technical Data Sheet

AMPCOLOY® 95

Extrusions

Nominal composition:

Cobalt + Nickel	(Co + Ni)	2.0%
Beryllium	(Be)	0.5%
Others		max. 0.5%
Copper	(Cu)	balance

Nearest international specifications:

ISO	**NFA 82100**	
EN	**CW 103C**	**A3/1**
D	**DIN 17666**	**approx. W. Nr. 2.1285**
F	**AFNOR**	**UK2Be**
GB	**BS**	
USA	**CDA** **RWMA**	**approx. C17500-510** **Class 3**

Mechanical and physical properties	**Units**	**Nominal Values**	
		≤ 50.8 mm	**> 50.8 mm**
Tensile strength Rm	MPa	850	723
Yield strength Rp 0.5	MPa	600	517
Elongation A5	%	10	15
Brinell hardness	HBW 10/ 3000	240	220
Rockwell hardness	HRB	100	96
Modulus of elasticity E	GPa	130	130
Density ρ	g / cm³	8.75	
Coefficient of expansion α	10^{-6} / K	17	
Thermal conductivity λ	W / m ·K	220	
Electrical conductivity γ	m / Ω · mm²	28	
Electrical conductivity	% I.A.C.S.	52	
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:

AMPCOLOY® 95 finds its own applications due to its slightly higher mechanical properties. AMPCOLOY® 95 is principally used for spot welding electrodes, electrodes for mesh welding, electrode holders and seam welding discs for stainless steel, Monel and nickel alloys, flash welding dies, plunger tips in aluminium high pressure die casting machines and parts for injection moulding of plastic wherever a high thermal conductivity is desirable.

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.