Technical Data Sheet

AMPCOLOY® 940

Sand Castings

Nominal composition:

Nickel	(Ni)	2.5%
Silicium	(Si)	0.7%
Chromium	(Cr)	max. 0.4%
Copper	(Cu)	balance

Specifications:

D	**DIN**	
F	**AFNOR**	
GB	**BS**	
USA	**RWMA**	**Class 3**

Mechanical and physical properties	Units	Nominal Values
Tensile strength Rm	**KSI**	**79**
Yield strength Rp 0.5	**KSI**	**69**
Elongation in 2"	**%**	**8**
Brinell hardness	**BHN 30**	**210**
Rockwell hardness	**HRB**	**95**
Reduction of area ψ	**%**	**18**
Modulus of elasticity E	**KSI**	**19000**
Density ρ	**LBS / IN³**	**0.315**
Coefficient of expansion α	**IN / IN / °F**	**$9.72 \cdot 10^{-6}$**
Thermal conductivity λ	**CGS**	**0.497**
Electrical resistivity γ (1mm² section)	**Microhms/ Meter**	**35.7**
Electrical conductivity	**% I.A.C.S.**	**48**
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® 940 is a patented alloy which meets the demands of users of the RWMA class 3 alloys without Beryllium. In the industrialized countries, stricter health and safety instructions on the use of noxious elements have forced AMPCO METAL to develop this new alloy. It replaces the AMPCOLOY® 95 in practically all applications.

APPLICATIONS:

AMPCOLOY® 940 is used wherever a good electrical or thermal conductivity is required together with high mechanical properties:

Electrode holders

Parts for energy engineering