

Technical Data Sheet

AMPCO[®] 18.136

Centrifugals



Nominal composition:

Aluminium	(Al)	10.5%
Iron	(Fe)	3.5%
Others		max. 0.5%
Copper	(Cu)	balance

Mechanical and physical properties	Units	Nominal Values
Tensile strength R_m	KSI	100
Yield strength $R_{p0.5}$	KSI	42
Elongation in 2"	%	20
Brinell hardness	BHN 30	170
Rockwell hardness	HRB	87
Reduction of area ψ	%	20
Compressive strength ultimate R_{mc}	KSI	142
Proportional limit in compression R_{pc}	KSI	32
Shear strength R_{cm}	KSI	56
Modulus of elasticity E	KSI	16000
Charpy a_K	LBS.FT	16
Izod a_K	LBS.FT	22
Fatigue (100'000'000 cycles) σ_N	KSI	31
Density ρ	LBS / IN ³	0.269
Coefficient of expansion α	IN / IN / °F	$9 \cdot 10^{-6}$
Thermal conductivity λ	CGS	0.141
Electrical resistivity γ (1mm ² section)	Microhms/ Meter	133
Electrical conductivity	% I.A.C.S.	13
Specific heat c_p	BTU / LB · °F	0.1

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

AMPCO[®] 18.136 is a variation of AMPCO[®] 18 specifically heat-treated to increase the impact resistance by 40 % (see Charpy values) and the elastic limit in compression by 10 % without affecting the tensile strength of the alloy.

APPLICATIONS:

This AMPCO[®] 18.136 has been tailor-made for steel mill applications as slippers and screw-down nuts and for similar applications where an extreme wear pressure is combined with important impact loading.