

Technical Data Sheet

AMPCO[®] 22

Sand Castings



Nominal composition:

Aluminium	(Al)	14.1%
Iron	(Fe)	4.7%
Others		max. 0.5%
Copper	(Cu)	balance

Mechanical and physical properties	Units	Nominal Values
Tensile strength R_m	KSI	85
Yield strength $R_p 0.2$	KSI	71
Elongation in 2"	%	0.5
Brinell hardness	BHN 30	331
Rockwell hardness	HRC	35
Reduction of area ψ	%	0
Compressive strength R_{mc}	KSI	200
Compressive strength, 0.1 % perm. set	KSI	90
Shear strength R_{cm}	KSI	60
Modulus of elasticity E	KSI	15000
Charpy a_K	LBS.FT	2
Izod a_K	LBS.FT	2
Density ρ	LBS / IN ³	0.255
Coefficient of expansion α	IN / IN / °F	$9 \cdot 10^{-6}$
Thermal conductivity λ	CGS	23
Electrical resistivity γ (1 mm ² section)	Microhms/ Meter	167
Electrical conductivity	% I.A.C.S.	10
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[®] 22 is a duplex structure alloy of approx. 50 % of each phase - gamma 2 and beta. It is remarkable because of its hardness, its excellent compression and wear resistance and by its sliding properties.

As the elongation of the material is very low, thin sections should be avoided and the material should be well backed up.

APPLICATIONS:

The field of service of AMPCO[®] 22, with few exceptions, is limited to forming and/or drawing stainless steel, especially when runs are long or gauge is heavy and it is essential that tolerances are maintained.