Technical Data Sheet

AMPCO® 8

Extruded and drawn rods

Nominal composition:

Aluminium	(Al)	6.5%
Iron	(Fe)	2.5%
Tin	(Sn)	0.25%
Others		max. 0.5%
Copper	(Cu)	balance

Mechanical and physical properties	Units	Nominal Values			
	Ø	≤ 1/2"	1/2" - 1"	1" - 2"	2" - 3"
Tensile strength R_m	KSI	85	82	80	75
Yield strength $Rp_{0.5}$	KSI	56	52	47	41
Elongation 2"	%	35	35	35	35
Brinell hardness	BHN 30	187	183	174	163
Rockwell hardness	HRB	91	90	88	85
Reduction of area ψ	%	55	55	60	63
Compressive strength R_{mc}	KSI	135	130	125	120
Compressive strength, 0.1 % perm. Set	KSI	…	47	…	…
Proportional limit in compression R_{pc}	KSI	26	24	22	20
Shear strength R_{cm}	KSI	48	45	40	40
Modulus of elasticity E	KSI	18000	18000	18000	18000
Charpy $_{aK}$	LBS.FT	30	34	40	40
Izod $_{aK}$	LBS.FT	45	50	55	55
Density ρ	LBS / IN³	0.287			
Coefficient of expansion α	IN / IN / °F	$9.05 \cdot 10^{-6}$			
Thermal conductivity λ	CGS	0.129			
Electrical resistivity γ (1mm² section)	Microhms/m	143			
Electrical conductivity	% I.A.C.S.	12			
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® 8 extruded has a high tensile strength and a good yield along with an inherent toughness and ductility not usually found in a single alpha phase aluminium bronze. During the extrusion process the metal is hot worked resulting in a compact grain structure free of inclusions or other defects and improved physical properties.

APPLICATIONS:

AMPCO® 8 is used whenever good resistance to corrosion, erosion, abrasion and cavitation-pitting is essential. AMPCO® 8 is ideally suited for pipes, tubes, joints and other pieces used in the process, marine or other similar industries.

The extreme hardness of this alloy makes it an ideal bolting material.

AMPCO® 8 has excellent bearing characteristics. It is used for bushings, bearings, wear strips and in similar applications where hardness and ductility are essential for uninterrupted operations.