

# Technical Data Sheet

## AMPCO<sup>®</sup> 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 ≤ 12.7 mm	Ø 12.7 - 25.4 mm	Ø 25.4 - 50.8 mm	Ø 50.8 - 76.2 mm
Tensile strength R <sub>m</sub>	MPa	586	565	552	517
Yield strength R <sub>p 0.5</sub>	MPa	386	358	323	283
Elongation A <sub>5</sub>	%	35	35	35	35
Brinell hardness	HBW 10/3000	187	183	174	163
Rockwell hardness	HRB	91	90	88	85
Reduction of area ψ	%	55	55	60	63
Compressive strength R <sub>mc</sub>	MPa	931	896	862	827
Compressive strength, 0.1 % perm. Set	MPa	...	324	...	...
Proportional limit in compression R <sub>pc</sub>	MPa	179	165	152	138
Shear strength R <sub>cm</sub>	MPa	331	310	276	276
Modulus of elasticity E	GPa	124	124	124	124
Charpy a <sub>k</sub>	J	41	47	54	54
Izod a <sub>k</sub>	J	61	68	75	75
Density ρ	g / cm <sup>3</sup>	7.95			
Coefficient of expansion α	10 <sup>-6</sup> / K	16.3			
Thermal conductivity λ	W / m · K	54			
Electrical conductivity γ	m / Ω · mm <sup>2</sup>	7			
Electrical conductivity	% I.A.C.S.	12			
Specific heat c <sub>p</sub>	J / g · K	0.42			

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

AMPCO<sup>®</sup> 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<sup>®</sup> 8 is used whenever good resistance to corrosion, erosion, abrasion and cavitation-pitting is essential. AMPCO<sup>®</sup> 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.