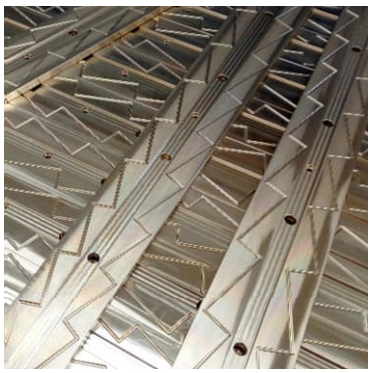
Technical Data Sheet

AMPCO® 8

AMPCO® 8 has exceptional properties and specifications that make it an outstanding aluminum bronze alloy. This high-strength alloy combines exceptional corrosion resistance with a remarkable balance of hardness and ductility, making it an ideal choice for demanding industrial applications. Its fine grain structure further enhances its physical properties.

Key Features:

- Food certified by ISEGA
- Good sliding properties
- High ductility
- Best corrosion resistance of all AMPCO® alloys
- High impact & fatigue strength
- Compact grain structure
- Excellent bearing characteristics
- No nickel contamination & no galling against stainless steel
- Easily sheared, bent, or deep drawn on standard equipment

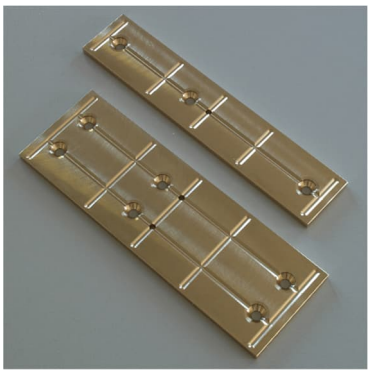


Nominal Composition:

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

Applications:

- Wear strips & wear plates
- Axial bearings & thrust washers
- Pipes, tubes, joints & connectors
- Bushings & bearings
- Applications in corrosive environments
- Used in marine, chemical, process & manufacturing industries



AMPCO® 8 finds versatile applications in various industries due to its outstanding properties. This high-strength aluminum bronze alloy is the first choice for components and parts where resistance to corrosion, erosion, abrasion, and cavitation pitting is paramount. Whether it's protecting against harsh marine environments or enhancing industrial machinery, AMPCO® 8 is a reliable and essential material for a wide range of demanding industrial needs.

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Mechanical Properties (Nominal values)	Rolled				Extruded			
	≤ 0.25"	- 0.5"	- 2"	- 3"	≤ 0.5"	- 1"	- 2"	- 3"
Tensile Strength R_m (ksi)	80	78	76	70	85	82	80	75
Yield Strength $R_{p\ 0.5}$ (ksi)	41	36	34	31	56	52	47	41
Elongation 2" (%)	40	40	42	40	35	35	35	35
Brinell Hardness (10/3000)	153	149	143	140	187	183	174	163
Rockwell Hardness (HRB)	82	81	79	78	91	90	88	85
Compressive Strength R_{mc} (ksi)	125	120	110	100	135	130	125	120
Compressive Strength $R_{pc0.1}$ (ksi)	-	-	36	-	-	47	-	-
Shear Strength R_{cm} (ksi)	52	50	45	42	48	45	40	40
Modulus of Elasticity E (ksi)	18000				18000			
Charpy a_k (ft·lbs)	45	45	45	40	30	34	40	40
Izod a_k (ft·lbs)	65	65	65	60	45	50	55	55
Fatigue (100 million cycles) σ_N (ksi)	26	26	25	21	-	-	-	-

Physical Properties:

Density ρ (lbs/in³)	Coefficient of Expansion α (in/in/°F)	Thermal Conductivity λ (W/m·K)	Electrical Conductivity (% I.A.C.S.)	Specific Heat c_p (BTU/lb·°F)
0.287	$9.05 \cdot 10^{-6}$	54	12	0.1

Machining Parameters:

Operation	Cutting Speed v_c (m/min)	Feed f (mm/rev)	Depth a (mm)	Tool Specification
Milling – Roughing	110 - 160	0.1 - 0.4	up to 4	K10 - K20
Milling – Finishing	90 - 115	0.05 - 0.1	0.1 - 0.5	K10 - K20
Turning – Roughing	150 - 200	0.1 - 0.2	up to 2	K10 - K20
Turning – Finishing	180 - 250	0.05 - 0.1	0.1 - 0.2	K10 - K20

Scan the QR Code to view our machining recommendations:

Contact us