DATA SHEET

Aluminiumbronze | Flat and Square Bars

Alloy	Cu Al 10 Ni 5 Fe 4, CW307G
Method of Manufacture	extruded only
Specification	EN 12 167
Tolerance	only plus tolerance, guideline, deviations possible
	straightness up to 4 mm/m
for widths ≤ 30 mm:	width +0.7 / -0 mm, thickness +0.7 / -0 mm
for widths 40 - 55 mm:	width +1.3 / -0 mm, thickness +0.9 / -0 mm
for widths 60 -120 mm:	width +2.4 / -0 mm, thickness +1.0 to +2.0 / -0 mm
Temper	M, mostly R680
Machinability	moderate, similar to steel of same hardness
Hot Working	good
Cold Working	not good, only after soft annealing
Corrosion Resistance	very good versus most media, incl. sea water
REACH	no obligations
RoHS	conformal

Mechanical Properties

	Tensile strength R_m	Yield stress $R_{p\,0,2}$	Elongation A	Hardness HB
M	as obtained			
R680	≥ 680 N/mm²	≥ 320 N/mm²	≥ 10 %	
H170				170 - 210
R740	≥ 740 N/mm²	≥ 400 N/mm²	≥ 8 %	
H200				≥ 200

Chemical Composition

Cu Rest
Al 8.5 - 11.0 %
Ni 4.0 - 6.0 %
Fe 3.0 - 5.0 %

Impurities, max.:
Mn 1.0 %, Pb 0.05 %, Si 0.2 %, Sn 0.1 %, Zn 0.4 %, other 0.2 %

High strength even at higher temperatures up to approx. 400°C. High fatigue strength even when exposed to corrosion. Resistant to neutral and acid, watery media as well as seawater. Good resistance to scaling, erosion and cavitation. Very high wear resistance. Good sliding properties in conjunction with mating material with hard surfaces and perfect lubrication. Plates for condenser and heat exchanger sheets. Shafts, screws, wear parts, control parts for hydraulics, high-pressure steam fittings. Mechanically and chemically stressed parts in mechanical engineering, shipbuilding and mining.

Comparable Specifications

Cu Al 10 Ni 5 Fe 4, 2.0966, DIN 17 665
C 63 200, C 63 000 UNS
CA 104, BS 2872, 2874, 2875

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