

Aluminiumbronze | Hexagon Bars

DATA SHEET



Alloy	Cu Al10 Ni5 Fe4, CW307G
Method of Manufacture	extruded & drawn
Specification	EN 12163
Tolerance	DIN 1763, h11
	10 mm A/F +0/-0.09 mm
	11-17 mm A/F +0/-0.11 mm
	19-30 mm A/F +0/-0.13 mm
	32-50 mm A/F +0/-0.16 mm
	55-70 mm A/F +0/-0.19 mm
Temper	R740S, therm. stress relieved
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 $R_{p0.2}$	Elongation A	Hardness HB
M	as obtained			
R680	$\geq 680 \text{ N/mm}^2$	$\geq 320 \text{ N/mm}^2$	$\geq 10\%$	
H170				170-210
R740	$\geq 740 \text{ N/mm}^2$	$\geq 400 \text{ N/mm}^2$	$\geq 8\%$	
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 Al10 Ni5 Fe4, 2.0966, DIN 17 665
C 63 200, C 63 000 UNS
CA104, BS 2872, 2874, 2875

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