

Aluminiumbronze | Round Bars

DATA SHEET



Alloy	Cu Al11 Fe 6 Ni6, CW308G
Method of Manufacture	Ø 12-70 mm extruded & drawn Ø 80-102 mm extruded only Ø 115-152 mm forged & premachined
Specification	EN 12163
Tolerance	≤ Ø 70 mm DIN 1756, h11 Ø 12-18 mm +0/-0.11 mm Ø 19-30 mm +0/-0.13 mm Ø 31-50 mm +0/-0.16 mm Ø 51-70 mm +0/-0.19 mm Ø 80-102 mm -0/+1.4 bis 2.0 mm Ø 115-152 mm -0/+2 mm
Temper	≤ Ø 70 mm: R830S, therm. stress relieved Ø 80-102 mm: M, mostly R740 Ø 115-152 mm: M, mostly R830
Machinability	moderate, similar to steel of same hardness
Hot Working	good
Wear Resistance	very good
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			
R740	≥ 740 N/mm ²	≥ 420 N/mm ²	≥ 5 %	
H220				220-260
R830	≥ 830 N/mm ²	≥ 550 N/mm ²		
H240				≥ 240

Chemical Composition

Cu Rest
Al 10.5-12.5 %
Ni 5.0-7.0 %
Fe 5.0-7.0 %
Impurities, max.:
Mn 1.5 %, Pb 0.05 %, Si 0.2 %, Sn 0.1 %, Zn 0.5 %, other 0.2 %

Like Cu Al10 Ni5 Fe4 with especially high strength, corrosion resistance and wear resistance. Extremely high stressed bearing parts and worm wheels. Valves, valve seats, cover plates, sliding components, wear parts, matrices for chipless forming technology, high-pressure steam fittings.

Comparable Specifications

Cu Al11 Ni6 Fe5, 2.0978, DIN 17 665