

Data sheet CW307G CuAl10Fe5Ni5 Alumeco A/S		Internal alloy name: CW307G Nominal composition: CuAl10Fe5Ni5 DIN-Werkstoff no.: - Alloy type: Aluminium Bronze Revision date: 14-01-2022							
Main usage <ul style="list-style-type: none"> • Marine • Seawater acid • Any applications where extreme corrosion resistance is required • Condenser and heat exchanger • Tools 	Main properties <ul style="list-style-type: none"> • High Strength up to 400 °C • High fatigue strength • Very good atmospheric corrosion resistance 	Important norms and literature EN12163 Copper and copper alloys. Rod for general purposes	EN12165 Copper and copper alloys. Wrought and unwrought forging stock						
Chemical composition (%) DIN/EN 12163 & EN 12165									
Cu	Al	Fe^a	Mn	Ni^a	Pb	Si	Sn	Zn	Others
Rest	8,5 11	3,0 5,0	Max. 1,0	4,0 6,0	Max. 0,05	Max. 0,2	Max. 0,1	Max. 0,4	Max. 0,2
a) For permanent mould castings, the minimum iron content of ingots and castings shall be 3,0% and the minimum nickel content shall be 3,7%									
Mechanical properties DIN/EN 12163 & EN 12165									
Material condition	Diameter and width across flats (mm)	Rm MPa	Rp_{0,2} MPa	A_{100mm} %	A %	Hardness HBW			
R680	10-120	680	320	-	10	170-210			
R740	10-80	740	400	-	8	Min. 200			
H170	8-80	-	-	-	-	170-250			
** Information values only									
Physical properties									
Density (20 °C)	Solidification range	Electrical conductivity	Thermal conductivity	Thermal expansion (20-300 °C)	Annealing temperature	E - modulus			
g cm⁻³	°C	%IACS	W m⁻¹ K⁻¹	µm m⁻¹ K⁻¹	°C	N mm⁻²			
7,6	1060-1075	7,5	51	17	-	124,000			
Properties and information									
Fabrication Properties					Joining Methods				
Hot Formability		Fair			Soldering		Good		
Cold Formability		Not Recommended			Brazing		Fair		
					Oxy-acetylene welding		Good		
					Gas-shielded arc welding		Good		