

Data sheet CC493K RG7 CuSn7Zn4Pb7 Alumeco A/S				Internal alloy name: CC493K Nominal composition: CuSn7Zn4Pb7 DIN-Werkstoff no.: 2.1090 Alloy type: Leaded Tin Bronze Revision date: 12-01-2021							
Main usage <ul style="list-style-type: none"> • General utility bearing alloy • Fittings • Bushings 		Main properties <ul style="list-style-type: none"> • The alloy is suitable for constructions • Water and stream fittings up to 225 degrees 			Important norms and literature EN 1982 Copper and Copper alloy ingots and castings ASTM B271 Standard Specification for Copper-Base Alloy Centrifugal Castings DIN 1705 Copper Tin and Copper Tin Zinc Casting Alloys (Cast Tin Bronze and gun metal) – Castings						
Chemical composition (%): EN 1982											
Cu^a	Ni	P	Pb	Sn	Zn	Al	Fe	S	Sb	Si	
81,0 – 85,0	Max. 2,0	Max. 0,10	5,0 – 8,0	6,0 ^b – 8,0	2,0 – 5,0	Max. 0,01	Max. 0,2	Max. 0,10	Max. 0,3	Max. 0,01	
a) Including Nickel b) For continuous castings and centrifugal castings, the minimum tin content for ingots shall be 5,4% and for castings 5,2% and the maximum copper content for ingots shall be 85% and for castings 86,0%											
Mechanical properties: EN 1982											
Casting process and designation		Tensile Strength R_m N/mm²		0,2% proof strength Rp_{0,2} N/mm²		Elongation A %		Brinell Hardness HBW			
		Min.		Min.		Min.		Min.			
Continuous GC		260		120		12		70			
Centrifugal GZ		260		120		12		70			
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					
8,8	900-1020	12	61	19		101,000					
Properties and information											
Fabrication Properties				Joining Methods							
Hot and Cold Formability		Not Recommended		Soldering			Excellent				
				Brazing			Good				
Comparable specification				Oxy-acetylene welding			Not Recommended				
C93200 (UNS & ATSM B271)		RG7 (DIN 1705)		Gas-shielded arc welding			Not Recommended				