

Material designation	
EN	CuSn5Zn5Pb2-C-GC CC499K
UNS	–

Chemical composition*	
Cu	86 %
Pb	max. 3 %
Ni	max. 0.6 %
Zn	6 %
Sn	4 %

* Reference values in % by weight

Physical properties*			
Electrical conductivity	MS/m	%IACS	11.5 20
Thermal conductivity	W/(m·K)		80
Density	g/cm ³		8.7
Modulus of elasticity	GPa		100

* Reference values at room temperature

Corrosion resistance

Cast alloys belong to the most corrosion-resistant copper alloys. They exhibit excellent resistance to atmospheric influences, carbonic acid and saline water. Also important is their resistance to seawater and their insensitivity to stress corrosion cracking.

Product standards

Cast alloys EN 1982

Material properties and typical applications

Wieland-GD1 is a cast copper-tin-zinc alloy. The material is mainly used in the fittings industry as well as for tube connectors. With the low lead and nickel content the requirements for components in drinking water installations are met.

The material is accepted for products in contact with drinking water as per 4 MS positive list.

Types of delivery

The Extruded and Drawn Products Division supplies bars, wire, sections and tubes. Please get in touch with your contact person regarding the available delivery forms, dimensions and tempers.

Fabrication properties

Forming		Heat treatment	
Machinability (CuZn39Pb3 = 100 %)	70 %	Melting range	960–1032 °C
Capacity for being cold worked	not possible	Thermal stress relieving	250–400 °C 2- 4 h
Capacity for being hot worked	not possible		

Mechanical properties, reference values

	Tensile strength	Yield strength	Elongation at rupture	Hardness
	R _m MPa min.	R _{p0.2} MPa min.	A % min.	HBW min.
Continuous casting	250	110	13	65