wieland

Wieland-GD1

CuSn5Zn5Pb2-C-GC | Cast bronze

Material designation			
EN	CuSn5Zn5Pb2-C-GC CC499K		
UNS	-		
Chemical composition*			
Cu	86 %		
Pb	max. 3 %		
Ni	2 %		
Zn	6 %		
Sn	4 %		

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.

*Reference	values	in	%	bv	weiaht
nererence	variaco		/0	$\sim y$	vergine

Physical properties*					
Electrical	MS/m	11.5			
conductivity	%IACS	20			
Thermal conductivity	W/(m·K)	80			
Density	g/cm³	8.7			
Moduls of elasticity	GPa	100			
* 0 ())	,				

*Reference values at room temperature

Types of delivery

The BU Extruded Products 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 Thermal	960–1032 ℃ 250–400 °C 2–4 h		
Capacity for being cold worked	not possible	stress relieving			
Capacity for being hot worked	not possible				

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.

Mechanical properties, refernce values				
	Tensile strength	Yield strength	Elongation	Hardness
	R _m	R _{p0,2}	А	HBW
	MPa	MPa	%	
Continous	250	110	13	65
casting				

Product standards

Cast calloys

EN 1982

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