

# Wieland-G05

CuSn5Zn5Pb5-C-GC  
Red brass

# Extruded and drawn products

# Wieland

Material designation	
EN	CuSn5Zn5Pb5-C-GC CC491K
UNS	-

Chemical composition*	
Cu	84.5 %
Sn	5 %
Zn	5 %
Pb	5 %

\* Reference values in % by weight

Physical properties*		
Electrical conductivity	MS/m %IACS	8.6 15
Thermal conductivity	W/(m·K)	72
Thermal expansion coefficient (0–300 °C)	10 <sup>-6</sup> /K	18,3
Density	g/cm <sup>3</sup>	8,74
Modulus of elasticity	GPa	93

\* 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
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### Material properties and typical applications

**Wieland-G05** is a medium hard construction and bearing material with high elongation. It is mainly used in the fittings industry for water and vapour fittings up to 225°C and for pump casings subjected to normal stress.

### 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	85 % (CuZn39Pb3 = 100 %) 20 %	Melting range	860 – 1030 °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 <sub>m</sub> MPa min.	R <sub>p0,2</sub> MPa min.	A % min.	HBW min.
Continuous casting	250	110	13	65