

Wieland-G05

CuSn5Zn5Pb5-C-GC | Red brass

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 8.6
%IACS 15

Thermal conductivity W/(m·K) 72

Thermal expansion coefficient (0–300 °C) 10⁻⁶/K 18.3

Density g/cm³ 8.74

Modulus of elasticity GPa 93

*Reference values at room temperature

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 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

Machinability 85 %
(CuZn39Pb3 = 100 %)

Capacity for being cold worked not possible

Capacity for being hot worked not possible

Heat treatment

Melting range 860–1030 °C

Thermal stress relieving 250–400 °C
1–3 h

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, reference values

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

Product standards

Cast alloys EN 1982