

# Wieland-G91

CuSn11Pb2-C-GC | Cast bronze

## Material designation

EN CuSn11Pb2-C-GC  
CC482K

UNS –

## Chemical composition\*

Cu 86 %

Sn 11.5 %

Pb 1.5 %

\*Reference values in % by weight

## Material properties and typical applications

**Wieland-G91** is a slide bearing material with good machinability. It has good emergency running properties and good wear resistance. In addition it can be subjected to high loads. Wieland-G91 is particularly suited for sliding plates, crankshaft bearings and toggle-lever bearings.

## Physical properties\*

Electrical conductivity MS/m 6.1  
%IACS 11

Thermal conductivity W/(m·K) 51

Thermal expansion coefficient (0–300 °C) 10<sup>-6</sup>/K 18

Density g/cm<sup>3</sup> 9

Modulus of elasticity GPa 95

\*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

Machinability 70 %  
(CuZn39Pb3 = 100 %)

Capacity for being cold worked not possible

Capacity for being hot worked not possible

### Heat treatment

Melting range 830–1000 °C

Thermal stress relieving 250–400 °C  
2–4 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 <sub>m</sub> MPa	Yield strength R <sub>p0.2</sub> MPa	Elongation A %	Hardness HBW
Continuous casting	280	150	5	90