

# Wieland-GA1

CuSn11P-C-GC | Cast bronze

## Material designation

EN CuSn11P-C-GC  
CC481K

UNS –

## Chemical composition\*

Cu 88 %

Sn max. 1 %

Pb 11 %

\*Reference values in % by weight

## Material properties and typical applications

**Wieland-GA1** is an alloy originating from the UK. Due to its high phosphorus content hardness and strength of this alloy are increased at the expense of elongation.

## Physical properties\*

Electrical conductivity MS/m 6  
%IACS 10

Thermal conductivity W/(m·K) 52

Thermal expansion coefficient (0–300 °C) 10<sup>-6</sup>/K 18.5

Density g/cm<sup>3</sup> 8.7

Modulus of elasticity GPa ca. 100

\*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 30 %  
(CuZn39Pb3 = 100 %)

Capacity for being cold worked not possible

Capacity for being hot worked not possible

### Heat treatment

Melting range 830 °C

Thermal stress relieving 200–450 °C

## 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	350	170	5	85

## Product standards

Cast alloys EN 1982