

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) 10⁻⁶/K 18.5

Density g/cm³ 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 _m MPa	Yield strength R _{p0,2} MPa	Elongation A %	Hardness HBW
Continuous casting	350	170	5	85

Product standards

Cast alloys EN 1982