

Wieland-GA1

CuSn11P-C-GC
Cast bronze

Extruded and drawn products



Material designation	
EN	CuSn11P-C-GC CC481K
UNS	–

Chemical composition*	
Cu	88 %
Sn	max. 1 %
Pb	11 %

* Reference values in % by weight

Physical properties*		
Electrical conductivity	MS/m %IACS	6 10
Thermal conductivity	W/(m·K)	52
Thermal expansion coefficient (0–300 °C)	10 ⁻⁶ /K	18.5
Density	g/cm ³	8.7
Modulus of elasticity	GPa	ca. 100

* 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

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.

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 (CuZn39Pb3 = 100 %)	30 %	Melting range	830 °C
Capacity for being cold worked	not possible	Thermal stress relieving	200–450 °C
Capacity for being hot worked	not possible		

Mechanical properties, reference values

	Tensile strength	Yield strength	Elongation at rupture	Hardness
	R _m MPa min.	R _{p0.2} MPa min.	A % min.	HBW min.
Continuous casting	350	170	5	85