

Wieland-GA7

Red brass

Extruded/drawn products

Wieland-GA7 belongs to the group of cast copper-tin alloys (bronzes) and has a relatively high ductility. It is used i. a. for fittings and water turbines.

Chemical composition*

Cu	88%
Zn	2%
Sn	10%

* Reference values in % by weight

Material designation

EN	not standardized
UNS	-
DIN*	G-CuSn10Zn 2.1086.01
BS*	---
NF*	---

* Former national standards

Physical properties*

Electrical conductivity	MS/m	6.4
	% IACS	11
Thermal conductivity	W/(m*K)	45
Thermal expansion coefficient (0-300°C)	10 ⁻⁶ /K	19.8
Density	g/cm ³	8.7
Modulus of elasticity	GPa	103

* Reference values at room temperature
1 GPa = 1 kN/mm²
1 MS/m = 1 m/Ω • mm²

Fabrication properties

Forming	
Machinability	30%
(CuZn39Pb3 = 100 %)	
Capacity for being cold worked	not possible
Capacity for being hot worked	not possible
Heat treatment	
Lower melting point	854°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.

Product standards

none

Mechanical properties (values can be achieved and are a function of size and form)

Reference values		
R _m	[MPa]	min 260
R _{p0,2}	[MPa]	min 130
A	[%]	min 15
HB		min 70

Forms and sizes available

Material								
Wieland	EN designation		Outside diameter		Inside diameter	Wall thickness	Diameter / width across flats	
	Brief designation	Number	from	to	from	from*	from	to
GA7	---	---	18	404	9	■		
Round tubes								
Sections			on request					
Sectional tubes								
Round and polygonal rods							10	354

All values in mm

- Wall thickness min. 4 mm, with an outside diameter > 50 mm: 9 % of the outside diameter.

Wieland - GA7

Wieland

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