

Material designation	
EN	not standardized
UNS	not standardized

Chemical composition*	
Cu	58 %
Mn	2 %
Al	1.5 %
Pb max.	0.1 %
Si	0.5 %
Zn	balance

* Reference values in % by weight

Physical properties*		
Electrical conductivity	MS/m %IACS	7.8 13
Thermal conductivity	W/(m·K)	63
Thermal expansion coefficient (0–300 °C)	10 ⁻⁶ /K	20.4
Density	g/cm ³	8.1
Modulus of elasticity	GPa	93

* Reference values at room temperature

Corrosion resistance
Special brass generally exhibits excellent corrosion resistance due to alloying additions. Wieland-SD4 is characterized by good resistance to organic substances and neutral or alkaline compounds.

Product standards
no EN standard

Material properties and typical applications

Wieland-SD4 is a special brass with very high wear resistance due to silicides embedded in the structure. Apart from its lead content the composition corresponds to CW713R. This alloy is used for slide bearings and valve guides as well as for construction components in mechanical engineering.

Wieland-SD4 is also highly suitable for hot stamped parts requiring higher mechanical strength and higher wear resistance.

The material is lead free according to ELV-directive (Pb max. 0,1%).

Types of delivery

The Extruded and Drawn Products Division supplies bars, wires, sections and tubes. Please get in touch with your contact person regarding the available delivery forms, dimensions and tempers.

Fabrication properties

Forming		Surface treatment	
Machinability (CuZn39Pb3 = 100 %)	45 %	Polishing mechanical	good
Capacity for being cold worked	poor	electrolytic	poor
Capacity for being hot worked	excellent	Electroplating	fair

Joining	
Resistance welding (butt weld)	good
Inert gas shielded arc welding	good
Gas welding	fair
Hard soldering	poor
Soft soldering	poor

Heat treatment	
Melting range	875–910 °C
Hot working	600–700 °C
Solution annealing	500–650 °C 1–3 h
Thermal stress-relieving	350–450 °C 1–3 h

Mechanical properties

The mechanical properties are equivalent to Wieland-S40/CW713R.

Trademarks



Further information is provided in the brochure on ECOSLIDE.