

MATERIAL DATASHEET

ALLOY 058



Designation	
Diehl Brass Solutions	058
DIN EN symbol	CuZn42
DIN EN	CW510L(-DW)
UNS	C28500

Composition (mass as %, reference values)	
Cu	58.0
Pb	< 0.1
Zn	remainder

Application

- Very suitable for forgings.
- The alloy has only limited cold formability.
- The alloy can be used in drinking water installations.

Products and relevant standards

Rods (general purposes)	EN 12163
Rods (free machining purposes)	EN 12164
Rods (forging stock)	EN 12165
Profiles (general purposes)	EN 12167
Seamless, round tubes (general purposes)	EN 12449

Processing properties

Machinability (CuZn39Pb3 = 100%)	moderate
Hot formability	very good (650 – 760 °C)
Cold formability	less suitable

Heat treatment

Soft annealing	450 – 550 °C	1 – 2 h
Stress relief annealing	280 – 330 °C	1 – 2 h

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Risk Disclosure

The tests took place under the test conditions mentioned here. In these tests, selected properties of the alloy can be investigated. The test results are based on the test setup shown, which has specific laboratory conditions. Deviating conditions in the field may have significant effects. Aspects which play a decisive role include, in particular, but not exhaustively, the design of the components, the further processing of the alloy, the processing of the finished parts made with the alloy, transport and storage, the manner and location of use, the installation and the installation situation.

When it comes to properties, the corrosion resistance of the material is a key factor. The DIN standard DIN EN ISO 8044 (formerly DIN 50900) defines corrosion as a reaction of a metallic material with its environment that causes a measurable change in the material and can impair the function of a metal component or an entire system. From a technical point of view, corrosion is a reaction of a material with its environment that causes a measurable change in the material. Corrosion can impair the function of a component or system. Corrosion, as a complex system of interactions, depends on a large number of factors which, in their multifariousness, cannot be fully reproduced under test conditions. The type of corrosion known as dezincification, which occurs with zinc-containing copper alloys that are in contact with drinking water, is familiar to the broad expert public.

The purchaser of the alloy is responsible for determining and testing the design, further processing, application areas of products made from the alloy, and any other relevant factors. This is also applicable when determining the dezincification depth that is considered reasonable for the selected area of application. Diehl cannot accept any liability for this, but solely for the information contained in the enclosed product

Physical properties

Density	g/cm ³	8.5
Coefficient of linear thermal expansion: 20 – 200 °C	• 10 ⁻⁶ /K	21.4

Mechanical properties and hardness

- The strength properties and hardness values are specified in the relevant product standards.
- The properties depend on the product, the condition and the dimensions.

Corrosion resistance

Generally good resistance to neutral, alkaline and organic aqueous solutions.