

MATERIAL DATASHEET

ALLOY 057 (ECOMERICA)



Designation		Composition (mass as %, reference values)	
Diehl Metall	057 (ECOMERICA)	Cu	58.0
DIN EN symbol	CuZn42	Pb	< 0.2
DIN EN	CW510L	Zn	remainder
UNS	-		

Application

- Low-lead material for automated machining.
- Suitable for all types of turned parts. Very suitable for forgings.
- The alloy can be cold formed only to a limited extent.
- 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

Physical properties

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

Processing properties

Machinability (CuZn39Pb3 = 100%)	moderate
Hot formability	good
Cold formability	less suitable

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.

Heat treatment

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

Corrosion resistance

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

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