

Alloy Designation

EN	-
DIN CEN/TS	-
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Characteristics

CuSn0.04 is an in-house developed alloy and is specifically used for radiator fin applications. The alloy has excellent thermal properties. Hot and cold formability is very good (which makes it ideal for engine cooling applications where heat transfer is critical).

The tin addition improves mechanical properties and, as such, contributes to a sturdy final product.

Chemical Composition (Balance)

Weight percentage

Cu	≥ 99.90	%
Sn	0,015 – 0,055	%

Mechanical Properties (EN 1652)

Temper	Tensile Strength	Yield Strength Minimum	Elongation Minimum	Hardness
	R _m	R _{p0.2}	A _{50mm}	HV *
	MPa	MPa	%	HV
R220	220 .. 275	80	15	53 .. 65
R255	255 .. 315	190	4	80 .. 100
R260	260 .. 330	210	3	85 .. 110
R280	280 .. 360	240	1	95 .. 120
R330	330 .. 410	300		105 .. 130
R355	355 .. 435	330		115 .. 140
R390	390 .. 475	370		125 .. 150

* only for information

Physical Properties

Typical values in annealed temper at 20 °C

Density		8.93	g/cm ³
Thermal expansion coefficient	20 .. 300 °C	17.7	10 ⁻⁶ /K
Specific heat capacity		0.385	J/(g·K)
Thermal conductivity		360	W/(m·K)
Electrical conductivity	MS/m	53	MS/m
Electrical conductivity	IACS	92	%
Modulus of elasticity	GPa	120	GPa

Fabrication Properties *

Cold Forming Properties	Excellent
Hot formability	Good
Soft Soldering, Brazing	Excellent
Welding	Good

* For more details call our technical service