

# Data Sheet: Zamak 2

(ZnAl4Cu3)

## Alternative Designations

Standard	EN	ASTM	UNS
Designation	ZP0430	AC43A	Z35541

## Details

Compared to the other members of the Zamak family of metals, Zamak 2 is the highest in terms of tensile strength, hardness and creep resistance. It gains strength and hardness after aging for long term. Some of its outstanding casting qualities are damping capacity and vibration attenuation. However, it gets brittle and shrinks with time. It is used in the production of short run injection moulding dies.

## Key Features

High Strength • Hardness • Machinability

## Chemical Composition

Element	Al	Cu	Mg	Fe	Pb	Cd	Sn	Zn
Percentage	3.6 – 4.3	2.5 – 3.0	0.02 – 0.05	0.1	0.005	0.004	0.003	bal

## Mechanical Properties

Property	Yield strength [MPa]	Ultimate tensile strength [MPa]	Elongation [%]	Hardness
Value	283	359	7	100

## Physical Properties

Property	Value
Density [g/cm <sup>3</sup> ]	6.6
Module of elasticity [GPa]	96
Electrical conductivity [S/m]	1.46e+7
Coefficient of thermal expansion [K <sup>-1</sup> · 10 <sup>-6</sup> ]	27.7
Thermal conductivity [W/m · K]	105
Specific heat capacity [J/kg · K]	419

## Reference

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