



# Zamak 7

## Alternative Designations

ZnAl4Ni

## Key Features

Relatively high ductility • High fluidity

## Description

Zamak 7 has higher fluidity than the rest of the Zamak family alloys. This makes it ideal for special hardware components that will need some formability during assembly operations. Thinner walls can be cast with this alloy. It has outstanding damping capacity and vibration attenuation compared to other aluminium die casting alloys. It is known for its high strength and resistance to wear and tear.

## Mechanical Properties

Yield strength	221 MPa
Tensile strength	283 MPa
Elongation at break	13%
Hardness	80
Module of elasticity	85.5 GPa

## Chemical Composition

Al	3.7 – 4.3%	N	-
Bi	-	Nb	-
C	-	Ni	0.005 – 0.020%
Cd	0.002%	O	-
Co	-	P	-
Cr	-	Pb	0.003%
Cu	0.1%	S	-
Fe	0.035%	Si	-
H	-	Sn	0.001%
Mg	0.005 – 0.02%	Ti	-
Mn	-	V	-
Mo	-	Zn	Rest is Zn

## Physical Properties

Density	6.6 g/cm <sup>3</sup>
Electrical conductivity	1.56E+07 m/Ω · mm <sup>2</sup>
Coefficient of thermal expansion	27.4 K <sup>-1</sup> · 10 <sup>-6</sup>
Thermal conductivity	113 W/m · K
Specific heat capacity	419 J/kg · K

## Reference

Datasheets provided by Xometry contain materials sourced through trusted OEMs, material distributors, and databases. Please visit [Materialdatacenter.com](https://Materialdatacenter.com) for further information on this material.