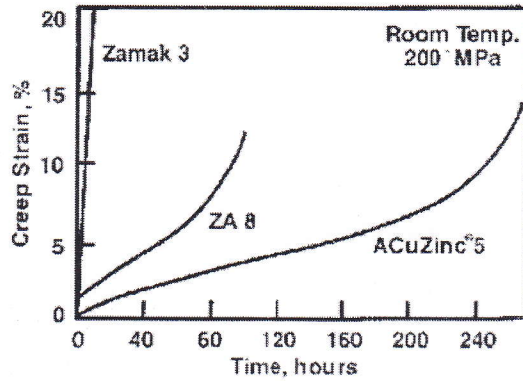


# ACUZINC

The newest of the Mazak family of zinc die-casting alloys. Acuzinc has been developed to give improvements in a variety of qualities needed in some die-cast parts. In die-cast condition Acuzinc has exhibited higher strength, elongation (creep) hardness and ductility characteristics than those of Mazak 3 or 8. In addition to this it also gives lower wear rates and coefficients of friction. When compared with machined Brass, Acuzinc has showingood comparative hardness.

To achieve casting fluidity similar to other Mazak products, Acuzinc should be cast at 480 - 490°C. This may require the die-caster to adopt special melting practices. Details can be obtained from our Technical Support Staff.



Mechanical Properties	Gravity	Die-cast
Tensile Strength (MPa)	297	407
Elongation (% in 51mm)	4.5	0.4
Hardness (HBN)	100 - 115	105 - 125
Impact Strength (Energy, Joules)	15.6	
Fatigue Strength 10 <sup>6</sup> cycles (MPa)	155	84

Physical properties	
Density	6,851 Kg/m <sup>3</sup> at 21°C
Casting temperature	480 - 490°C
Specific heat capacity	0.340 J/Kg/K at 20°C
Thermal expansion	24.1 µm/m K

Thermal conductivity	1.0570 J/s cm K at 20°C
Electrical conductivity	26.9% IACS
Electrical resistance	6.40 µm ohm cm at 20°C

## TYPICAL ANALYSIS

Alloying elements	
Aluminum	2.8 - 3.3%
Copper	5 - 6%
Magnesium	0.025 - 0.05%

Impurities	
Iron	< 0.075%
Lead	< 0.005%
Cadmium	< 0.004%
Tin	< 0.003%