

## Comparison of Zamak3 and Zamak5

Material composition	Element	Zamak3	Zamak5
	Al	3.5~4.3	3.5~4.3
	Mg	.02~.05	.03~.08
	Cu	.25max	.75~1.25
	Fe	0.1	0.1
	Pb	0.005	0.005
	Cd	0.004	0.004
	Sn	0.003	0.003
	Ni	--	--
	Zn	--	--
Mechanical properties		Zamak3	Zamak5
	tensile strength(Kg/mm2)	28.8	33.7
	Falling strength(Kg/mm2)	--	--
	Elongation(%)	10	7
	Shear strength(Kg/mm2)	21.8	26.7
	Hardness	82	91
	Impact strength(J)	30.2	33.7
	Weakness (Kg/mm2,5%103)	4.85	5.76
	Compressive strength(Kg/mm2)	42	60.9
Physical properties		Zamak3	Zamak5
	density g/cm3	6.64	6.64
	Melting temperature°C	382~387	381~386
	Conductivity(%ACS)	27	26
	Heat transfer coefficient(W/M°K)	113	109
	Thermal expansion coefficient(20~100°C)(µm/m)	27.36	27.36
	Specific heat kg°C	0.419	0.419
	Shrinkage	6/1000	6/1000

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