

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/	28.8	33.7
	Falling strength(Kg/	--	--
	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%	4.85	5.76
	Compressive strength(Kg/	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/	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

Common Questions on Zamak 3 and Zamak 5 Selection:

Q: What are the main mechanical differences between Zamak 3 and Zamak 5?A: According to the comparison chart, Zamak 5 offers higher tensile strength (33.7 Kg/mm²) and hardness (91) compared to Zamak 3 (28.8 Kg/mm² and 82). However, Zamak 3 has better elongation (10%) than Zamak 5 (7%), making it slightly more ductile.

Q: How does the copper content differ between Zamak 3 and Zamak 5? A: Zamak 5 contains significantly more copper (0.75~1.25%) than Zamak 3 (0.25% max). This higher copper content in Zamak 5 contributes to its increased strength and hardness but can affect long-term dimensional stability slightly more than Zamak 3.

Q: Does Channov Precision provide zinc alloy die casting or machining services? A: Yes, we provide precision components using high-quality Zamak 3 and Zamak 5 alloys. Our parts meet the strict physical and mechanical standards required for automotive and industrial hardware.

CHANNOV AUTO PARTS is a leading manufacturer in the production Oilless Bush, Marginal Lubricating Bush, Bimetal bushing, Bronze Bush, Solid Lubricant Embedded Bush, Cast bronze bearing, Teflon bushing, FR bearing, Door hinge bushing. If you want to know more about material or get a free inquiry, please contact us: info@channovprecision.com , we will reply to you within 2 hours.