## Comparisons of Back Up Alarm with Sand-Mixed and without

Feature	Pure Black Resin Potting (High-	Sand-Mixed Resin Potting (Cost-
	Quality Process)	Reduction Process)
Sealing Performance	Excellent waterproofing and	X May form micro-gaps, reducing
	moisture resistance	waterproof effectiveness
Vibration Absorption	Absorbs vibration well,	X Less effective, may shorten
	protecting components	component lifespan
Sound Quality	Uniform distribution, stable	🗙 Uneven material may affect speaker
	sound transmission	resonance
Durability	✓ High resistance to	🗙 May develop cracks over time due to
	environmental factors	different expansion rates
Cost	X Higher cost due to full resin	Lower cost by reducing resin
	usage	consumption
Weight	Heavier due to dense resin	🗙 Lighter due to less resin usage
Structural Strength	Provides sufficient rigidity	🗙 Can improve rigidity but may cause
		brittleness
Shrinkage Control	🗙 Resin may slightly shrink	Sand helps reduce shrinkage
	during curing	deformation
Common Usage	<ul> <li>High-quality automotive</li> </ul>	<ul> <li>Cost-sensitive products with lower</li> </ul>
	alarms requiring durability	waterproof requirements
Suitability for IP	More likely to pass IP	X May fail due to potential micro-gaps
Testing	waterproof tests	

YC's current production process

-Pure Black Resin Potting (High-Quality Process)



Well-known brand product, purchase from on-line store

-Sand-Mixed Resin Potting (Cost-Reduction Process)

