

Material Composition Specification

AK Case



Device average mass 1.898 g
 Fluctuation margin +/-10%

Component	Material	Material		Substance	CAS No.	Substance		
		(%wt)	(mg)			(%wt)	(mg)	(ppm)
active device*	doped Si	5.69%	108	Si	7440-21-3	93.9%	101.4	93900
				Au	7440-57-5	2.5%	2.70	2500
				PbO	1317-36-8	1.9%	2.05	1900
				SiO ₂	7631-86-9	1.7%	1.84	1700
terminals	copper alloy	42.68%	810	Cu	7440-50-8	>99.9%	810	>99900
tablet	copper alloy	34.88%	662	Cu	7440-50-8	>99.9%	662	>99900
die attach	lead alloy solder	8.85%	168	Pb	7439-92-1	92.5%	155.4	92500
				Sn	7440-31-5	5.0%	8.40	5000
				Ag	7440-22-4	2.5%	4.20	2500
encapsulation**	epoxy resin	7.90%	150	SiO ₂	60676-86-0	42.9%	64.4	42900
				C ₃₆ H ₄₀ O ₆	25036-25-3	37.6%	56.4	37600
				C ₃₈ H ₄₀ O ₈ P ₂	139189-30-3	5.5%	8.25	5500
				O ₄ SiZr	10101-52-7	5.3%	7.95	5300
				CH ₂ Cu ₂ O ₅	12069-69-1	3.0%	4.50	3000
				C ₉ H ₄ O ₅	552-30-7	1.6%	2.40	1600
				TiO ₂	13463-67-7	1.4%	2.10	1400

*Specified for four active silicon die. Divide the total active device weight by a fourth to accurately quantify a single die.

**Approximately 2.7% of the encapsulation is comprised of a proprietary material.

Disclaimer

The information provided in this Material Composition data sheet is, to the best of our knowledge, correct. However, there is no