

Hi-Rel and commercial Powermite-1 family Material Declaration Sheet

Item No.	Component	Material Name	Component Mass [g]	Sub Component Breakdown	CAS No.	Sub Component Mass [g]	Sub Component Mass per Unit[%]	Sub Component Mass per Component [%]
1	Lead Frame	Bare Cu Alloy (A194)	0.008844	Copper (Cu)	7440-50-8	0.008583	52.01%	97.05%
				Phosphorous (P)	7723-14-0	0.000013	0.08%	0.15%
				Iron (Fe)	7439-89-6	0.00023	1.39%	2.60%
				Zinc (Zn)	7440-66-6	0.000018	0.11%	0.20%
2	Die & Clip Bond Material	Solder Paste (NC-SMQ75 MM3236)	0.000907	Lead (Pb)	7439-92-1	0.000798	4.84%	87.98%
				Tin (Sn)	7440-31-5	0.000091	0.55%	10.03%
				Silver (Ag)	7440-22-4	0.000018	0.11%	1.98%
3	Die	Silicon Chip	0.00059	Silicon (Si)	7440-21-3	0.00059	3.58%	100.00%
4	Clip	Bare Cu Alloy (A194)	0.001	Copper (Cu)	7440-50-8	0.000971	5.88%	97.00%
				Phosphorous (P)	7723-14-0	0.000002	0.01%	0.20%
				Iron (Fe)	7439-89-6	0.000026	0.16%	2.60%
				Zinc (Zn)	7440-66-6	0.000002	0.01%	0.20%
5	Encapsulation	Epoxy Molding Compound (CK-6001)	0.004737	Fused Silica	60676-86-0	0.003979	24.11%	84.00%
				Epoxy Resin	Proprietary	0.000355	2.15%	7.49%
				Phenolic Resin	Proprietary	0.000142	0.86%	3.00%
				Non-brominated Flame Retardant	Proprietary	0.000142	0.86%	3.00%
				Mixed Siloxanes	Proprietary	0.000047	0.28%	0.99%
				Carbon Black	1333-86-4	0.000024	0.15%	0.51%
				Silica Crystalline - Quartz	14464-46-1	0.000024	0.15%	0.51%
Impurities, as Cristobalite	14808-60-7	0.000024	0.15%	0.51%				
6 A	Plating (e3)	Pure Tin Plating	0.000422	Tin (Sn)	7440-31-5	0.000422	2.56%	100.00%
				Lead (Pb)	7439-92-1	0.0000000211	0.00%	0.00%
6 B	Plating (PbSn)	Tin/Lead plating	0.000422	Tin (Sn)	7440-31-5	0.0003798	2.30%	90.00%
				Lead (Pb)	7439-92-1	0.0000422	0.26%	10.00%
Total Mass of Assembled Unit [g]			0.0165			0.0165	100%	

