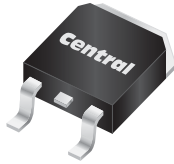


# Material Composition Specification

## D<sup>2</sup>PAK Case



Device average mass ..... 1460 mg  
 Fluctuation margin ..... +/-10%

Component	Material	Material		Substance	CAS No.	Substance		
		(%wt)	(mg)			(%wt)	(mg)	(ppm)
active device	doped Si	0.44%	6.42	Si	7440-21-3	0.44%	6.42	4,397
leadframe	Cu alloy	64.56%	943	Cu	7440-50-8	64.52%	942	645,224
				Fe	7439-89-6	0.03%	0.5	342
die attach	high temperature solder paste	1.13%	16.5	Pb	7439-92-1	1.04%	15.25	10,446
				Sn	7440-31-5	0.06%	0.825	565
				Ag	7440-22-4	0.03%	0.412	282
encapsulation*	EMC	31.98%	467	silica	7631-86-9	21.75%	317.5	217,472
				epoxy resin	29690-82-2	6.4%	93.4	63,974
				phenol resin	9003-35-4	3.2%	46.67	31,967
				Sb <sub>2</sub> O <sub>3</sub>	1309-64-4	0.32%	4.67	3,199
				Br	7726-95-6	0.32%	4.67	3,199
	EMC GREEN	31.98%	467	silica (fused)	60676-86-0	24.62%	359.5	246,240
				epoxy resin	29690-82-2	3.2%	46.73	32,008
				phenol resin	9003-35-4	3.1%	45.28	31,015
				carbon black	1333-86-4	0.1%	1.4	959
				metal hydroxide	1309-42-8	0.96%	14.0	9,589
plating**	tin/lead process	1.89%	27.6	Sn	7440-31-5	1.7%	24.88	17,042
				Pb	7439-92-1	0.19%	2.76	1,890
	matte tin	1.89%	27.6	Sn	7440-31-5	1.89%	27.64	18,932

\*EMC GREEN molding compound is Halogen-Free.

\*\*For Lead Free plating, add suffix "PB FREE" to part number.

For Tin/Lead plating, add suffix "TIN/LEAD" to part number.

No suffix designation allows for the supply of either lead-free or tin/lead plated product depending on availability.

### Disclaimer

The information provided in this Material Composition data sheet is, to the best of our knowledge, correct. However, there is no guarantee to completeness or accuracy, as some information is derived from data sources outside the company.

R3 (16-July 2018)