Device Material Content

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Package: 68 PLCC with SnPb Plating
Total Device Weight 4.80 Grams

January, 2011	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	Notes / Assumptions:
Die	1.19%	0.057			Silicon chip	7440-21-3	Die size: 1.63 x 1.68 mm
Mold	84.35%	4.049					Mold Compound Density between 1.8 and 2.0 grams/cc
			73.97%	3.551	Silica Fused	60676-86-0	75 to 95% Silica Fused (LSC uses 87.7% in our calculation)
			4.22%	0.202	Epoxy Resin	-	2 to 8% Epoxy Resin (LSC uses 5% in our calculation).
			4.22%	0.202	Phenol Resin	-	3 to 8% Phenol Resin (LSC uses 5% in our calculation).
			1.69%	0.081	Epoxy Cresol Novolac	9003-35-4	0 to 3% Epoxy Cresol Novolac (LSC uses 2% in our calculation).
			0.25%	0.012	Carbon black	1333-86-4	0.1 to 0.5% Carbon black (LSC uses 0.3% in our calculation)
D/A Epoxy	0.10%	0.005					
			0.08%	0.0039	Silver (Ag)	7440-22-4	Die attach epoxy Density: 4 grams/cc
			0.02%	0.0010	other	-	(silver content: 60-100%; LSC uses 80% in our calculation).
Wire	0.06%	0.003			Gold (Au)	7440-57-5	1 wire for each package lead; wire length 3 mm
Lead Plating	0.56%	0.027					
			0.48%	0.023	Tin (Sn)	7440-31-5	Nominal: 85% Sn, 15% Pb
			0.08%	0.004	Lead (Pb)	7439-92-1	Thickness is 0.015mm
Leadframe	13.74%	0.660					Leadframe thickness is nominal (per Case Outline).
			13.535%	0.650	Copper (Cu)	7440-50-8	Cu (LSC uses 98.5% in our calculation)
			0.172%	0.0082	Iron (Fe)	7439-89-6	0 to 2.35% Fe (LSC uses 1.25% in our calculation)
			0.004%	0.0002	Phosphorus (P)	7723-14-0	0 to 0.07% P (LSC uses 0.03% in our calculation)
			0.019%	0.0009	Zinc (Zn)	7440-66-6	0.12 to 0.15% Zn (LSC uses 0.14% in our calculation)
			0.011%	0.0005	Zirconium (Zr)	7440-67-7	0 to 0.15% Zr (LSC uses 0.08% in our calculation)

Notes:

The values listed above are nominal values based on studies of representatives of this particular package type, and are believed to be as accurate as possible.

Constituent substances and proportions in epoxy materials are before curing.

The information provided above is representative of the package as of the date listed, and is subject to change at any time.

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