Device Material Content

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Package: **84 PLCC** **with SnPb Plating**
Total Device Weight **7.21** **Grams**

January, 2011	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	Notes / Assumptions:
Die	0.20%	0.014			Silicon chip	7440-21-3	Die size: 3.38 x 3.54 mm
Mold	85.89%	6.192					Mold Compound Density between 1.8 and 2.0 grams/cc
			75.32%	5.431	Silica Fused	60676-86-0	75 to 95% Silica Fused (LSC uses 87.7% in our calculation)
			4.29%	0.310	Epoxy Resin	-	2 to 8% Epoxy Resin (LSC uses 5% in our calculation).
			4.29%	0.310	Phenol Resin	-	3 to 8% Phenol Resin (LSC uses 5% in our calculation).
			1.72%	0.124	Epoxy Cresol Novolac	9003-35-4	0 to 3% Epoxy Cresol Novolac (LSC uses 2% in our calculation).
			0.26%	0.019	Carbon black	1333-86-4	0.1 to 0.5% Carbon black (LSC uses 0.3% in our calculation)
D/A Epoxy	0.02%	0.0012					
			0.01%	0.0010	Silver (Ag)	7440-22-4	Die attach epoxy Density: 4 grams/cc
			0.00%	0.0002	other	-	(silver content: 60-100%; LSC uses 80% in our calculation).
Wire	0.05%	0.004			Gold (Au)	7440-57-5	1 wire for each package lead; wire length 3 mm
Lead Plating	0.46%	0.033					
			0.39%	0.028	Tin (Sn)	7440-31-5	Nominal: 85% Sn, 15% Pb
			0.07%	0.005	Lead (Pb)	7439-92-1	Thickness is 0.015mm
Leadframe	13.39%	0.965					Leadframe thickness is nominal (per Case Outline).
			13.185%	0.951	Copper (Cu)	7440-50-8	Cu (LSC uses 98.5% in our calculation)
			0.167%	0.0121	Iron (Fe)	7439-89-6	0 to 2.35% Fe (LSC uses 1.25% in our calculation)
			0.004%	0.0003	Phosphorus (P)	7723-14-0	0 to 0.07% P (LSC uses 0.03% in our calculation)
			0.019%	0.0014	Zinc (Zn)	7440-66-6	0.12 to 0.15% Zn (LSC uses 0.14% in our calculation)
			0.011%	0.0008	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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