



Device Material Content

5555 NE Moore Ct.
Hillsboro OR 97124
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Package: 44 PLCC with Matte Sn Plating
Total Device Weight 2.18 Grams

August, 2008	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	Notes / Assumptions:
Die	0.53%	0.012			Silicon chip	7440-21-3	Die size: 3.5 x 2.8 mm
Mold	84.69%	1.846	74.28%	1.619	Silica Fused	60676-86-0	Mold Compound Density between 1.8 and 2.0 grams/cc 75 to 95% Silica Fused (LSC uses 87.7% in our calculation) 2 to 8% Epoxy Resin (LSC uses 5% in our calculation). 3 to 8% Phenol Resin (LSC uses 5% in our calculation). 0 to 3% Epoxy Cresol Novolac (LSC uses 2% in our calculation). 0.1 to 0.5% Carbon black (LSC uses 0.3% in our calculation)
			4.23%	0.092	Epoxy Resin	-	
			4.23%	0.092	Phenol Resin	-	
			1.69%	0.037	Epoxy Cresol Novolac	9003-35-4	
			0.25%	0.006	Carbon black	1333-86-4	
D/A Epoxy	0.05%	0.001	0.04%	0.0008	Silver (Ag)	7440-22-4	Die attach epoxy Density: 4 grams/cc Silver content: 60-100% (LSC uses 80% in our calculation)
			0.01%	0.0002	other	-	
Wire	0.09%	0.002			Gold (Au)	7440-57-5	1.00 mil diameter; 1 wire per package lead; wire length 3 mm
Lead Plating	0.46%	0.010			Tin (Sn)	7440-31-5	Plating is 100% Sn; thickness is >10.2um
Leadframe	14.18%	0.309	13.97%	0.305	Copper (Cu)	7440-50-8	Leadframe thickness is nominal (per Case Outline) Cu (LSC uses 98.5% in our calculation) 0 to 2.35% Fe (LSC uses 1.25% in our calculation) 0 to 0.07% P (LSC uses 0.03% in our calculation) 0.12 to 0.15% Zn (LSC uses 0.14% in our calculation) 0 to 0.15% Zr (LSC uses 0.08% in our calculation)
			0.177%	0.0039	Iron (Fe)	7439-89-6	
			0.004%	0.0001	Phosphorus (P)	7723-14-0	
			0.020%	0.0004	Zinc (Zn)	7440-66-6	
			0.011%	0.00025	Zirconium (Zr)	7440-67-7	

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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