Device Material Content

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Package: 100 PQFP with matte Sn Plating

Total Device Weight 1.60 Grams

MSL: 3
Peak Reflow Temp: 245°C

August, 2008	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	Notes / Assumptions:
Die	1.11%	0.018			Silicon chip	7440-21-3	Die size: 3.38 x 3.54 x 0.64 mm
Mold	84.38%	1.350					Mold Compound Density varies between 1.7 and 2.3 grams/cc
			74.00%	1.184	Silica Fused	60676-86-0	75 to 95% Silica Fused (LSC uses 87.7% in our calculation)
			5.91%	0.095	Epoxy Resin	-	5 to 10% Epoxy Resin (LSC uses 7% in our calculation).
			4.22%	0.068	Phenol Resin	-	2 to 8% Phenol Resin (LSC uses 5% in our calculation).
			0.25%	0.004	Carbon black	1309-64-4	0.1 to 0.5% Carbon black (LSC uses 0.3% in our calculation)
D/A Epoxy	0.08%	0.0012			Silver-filled Epoxy		
			0.061%	0.001	Silver (Ag)	7440-22-4	(silver content: 70-90%; LSC uses 80% in our calculation)
			0.015%	0.0002	other	-	Die attach epoxy Density: 4 grams/cc
Wire	0.18%	0.003			Gold (Au)	7440-57-5	1.0 mil wire diameter; 1 wire for each package lead; wire length 3 mm
Lead Plating	1.38%	0.022			Tin (Sn)	7440-31-5	Plating is 100% Sn; thickness is 0.015mm
Leadframe	12.88%	0.206					Leadframe thickness is nominal (per Case Outline)
			12.39%	0.198	Copper (Cu)	7440-50-8	96.2% Cu
			0.39%	0.0062	Nickel (Ni)	7440-02-0	3.0% Ni
			0.08%	0.0013	Silicon (Si)	7440-21-3	0.65% Si
			0.02%	0.0003	Magnesium (Mg)	7439-95-4	0.15% Mg

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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