Device Material Content

5555 NE Moore Ct.
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Package: 240 PQFP with SnPb Plating

Total Device Weight 7.20 Grams

August, 2008	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	Notes / Assumptions:
Die	0.81%	0.058			Silicon chip	7440-21-3	Die size: 8.20 x 8.50 mm
Mold	90.42%	6.511					Mold Compound Density varies between 1.7 and 2.3 grams/cc
			73.24%	5.274	Silica (Fused)	60676-86-0	70 to 90% Fused Silica (LSC uses 81% in our calculation)
			9.04%	0.651	Epoxy Resin	-	5 to 15% Epoxy Resin (LSC uses 10% in our calculation)
			4.52%	0.326	Phenol Novolac	9003-35-4	2% to 8% Phenol Novolac (LSC uses 5% in our calculation)
			1.58%	0.114	Antimony Trioxide	1309-64-4	0.5 to 2.5% Antimony Trioxide (LSC uses 1.75% in our calculation)
			1.58%	0.114	Brominated Epoxy Resin	68541-56-0	0.5 to 2.5 Brominated Epoxy Resin (LSC uses 1.75% in our calculation
			0.45%	0.033	Carbon Black	1333-86-4	0.1 to 0.5% Carbon black (LSC uses 0.5% in our calculation)
D/A Epoxy	0.15%	0.011			Silver-filled Epoxy		Die attach epoxy Density: 4 grams/cc
			0.12%	0.008	Silver (Ag)	7440-22-4	(silver content: 70-90%; LSC uses 80% in our calculation)
			0.03%	0.002	other	-	
Wire	0.16%	0.011			Gold (Au)	7440-57-5	1.27 mil wire diameter; 1 wire for each package lead; wire length 3 mm
Lead Plating	0.85%	0.061					
			0.72%	0.052	Tin (Sn)	7440-31-5	Nominal: 85% Sn, 15% Pb
			0.13%	0.009	Lead (Pb)	7439-92-1	Thickness is 0.015mm
Leadframe	7.61%	0.548					Leadframe thickness is nominal (per Case Outline)
			7.32%	0.527	Copper (Cu)	7440-50-8	96.2% Cu
			0.23%	0.016	Nickel (Ni)	7440-02-0	3.0% Ni
			0.05%	0.004	Silicon (Si)	7440-21-3	0.65% Si
			0.01%	0.001	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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