



Device Material Content

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Package: 44 TQFP (1.0mm) with matte Sn Plating
Total Device Weight 0.28 Grams

MSL: 3
Peak Reflow Temp: 260°C

August, 2008	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	Notes / Assumptions
Die	1.52%	0.004			Silicon chip	7440-21-3	Die size: 2.1 x 3.0 mm
Mold	72.31%	0.202	61.46%	0.172	Silica Fused	60676-86-0	Mold Compound Density between 1.7 and 2.1 grams/cc 80 to 90% Silica Fused (LSC uses 85% in our calculation) 5 to 10% Epoxy Resin (LSC uses 5% in our calculation). 5 to 10% Phenol Resin (LSC uses 5% in our calculation). 0.1% to 1% Antimony Trioxide (LSC uses 1% in our calculation) 0.1 to 1% Carbon black (LSC uses 0.6% in our calculation) 1 to 4% Other (LSC uses 3.4% in our calculation)
			3.62%	0.010	Epoxy Resin	-	
			3.62%	0.010	Phenol Resin	-	
			0.72%	0.0020	Antimony Trioxide	1309-64-4	
			0.43%	0.0012	Carbon black	1333-86-4	
			2.46%	0.007	Other (trade secret)	-	
D/A Epoxy	0.23%	0.0006	0.184%	0.0005	Silver (Ag)	7440-22-4	(silver content: 70-90%; LSC uses 80% in our calculation)
			0.046%	0.0001	Esters & resins	-	Die attach epoxy Density: 4 grams/cc
Wire	0.46%	0.0013			Gold (Au)	7440-57-5	0.8 to 1.0 mil diameter; 1 wire per package lead; wire length 3 mm
Leadframe Plating	2.71%	0.008			Tin (Sn)	7440-31-5	Plating is 100% Sn; thickness is 0.015mm
Leadframe	22.78%	0.064	22.21%	0.0622	Copper (Cu)	7440-50-8	Leadframe thickness is nominal (per Case Outline) Cu (LSC uses 97.5% in our calculation) 0 to 0.65% Si (LSC uses 0.4% in our calculation) 0 to 0.2% Zn (LSC uses 0.1% in our calculation) 0 to 0.25% Sn (LSC uses 0.2% in our calculation) 0 to 0.3% Cr (LSC uses 0.2% in our calculation) 0 to 3% Ni (LSC uses 1.5% in our calculation) 0 to 0.15% Mg (LSC uses 0.1% in our calculation)
			0.091%	0.00026	Silicon (Si)	7440-21-3	
			0.02%	0.00006	Zinc (Zn)	7440-66-6	
			0.05%	0.00013	Tin (Sn)	7440-31-5	
			0.05%	0.00013	Chromium (Cr)	7440-47-3	
			0.34%	0.0010	Nickel (Ni)	7440-02-0	
			0.02%	0.00006	Magnesium (Mg)	7439-95-4	

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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