Device Material Content

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Package: **352 SBGA** **with SnPb Solder Balls**
Total Device Weight **7.20** **Grams**

June, 2004	% of Total Pkg. Wt.	Weight (g)	% of Total Pkg. Wt.	Weight (g)	Substance	CAS #	Notes / Assumptions:
Die	0.58%	0.042			Silicon	7440-21-3	Die size: 7.6 x 7.6 mm
Encapsulation	3.32%	0.239					Encapsulation composition:
			2.42%	0.174	Silica	60676-86-0	70 to 76% Silica (LSC uses 73% in our calculation)
			0.30%	0.021	Cycloaliphatic Epoxy resin	2386-87-0	1 to 15% Cycloaliphatic Epoxy resin (LSC uses 9% in our calculation)
			0.30%	0.021	Epoxy resin	129915-35-1	1 to 15% Epoxy resin (LSC uses 9% in our calculation)
			0.30%	0.021	Methyl Hexahydrophthalic Anhydride	25550-51-0	1 to 15% Methyl Hexahydrophthalic Anhydride (LSC uses 9% in our calculation)
							Encapsulation Density ranges between 1.7 and 1.9 grams/cc
D/A Epoxy	0.08%	0.006					
			0.06%	0.004	Silver (Ag)	7440-22-4	Die attach epoxy Density: 4 grams/cc
			0.02%	0.001	other	-	70 to 80% Ag (LSC uses 75% in our calculation)
Wire	0.14%	0.010			Gold (Au)	7440-57-5	1.00 mil diameter; 1 wire per solder ball
Solder Balls	9.97%	0.718					
			5.22%	0.376	Tin (Sn)	7440-31-5	Solder ball composition Sn63/Pb37
			4.75%	0.342	Lead (Pb)	7439-92-1	
Substrate (BT)	10.74%	0.773			BT Resin	-	
Copper	74.41%	5.358			Copper (Cu)	7440-50-8	
Lid Plating	0.76%	0.055			Nickel (Ni)	7440-02-0	

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.

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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