

Materials Declaration

Package	CSP_BGA
Body Size	9x9mm
LeadCount	80
Option	SnAgPb
Ball Size	0.45 mm

Molding Compound			
Item	% of Compound	Weight (g)	PPM
SiO2 Filler	86.2	7.66 E-02	453209
Epoxy resin	6.0	5.33 E-03	31546
Phenol Resin	6.0	5.33 E-03	31546
Metal Hydroxide	1.5	1.33 E-03	7886
Carbon Black	0.3	2.66 E-04	1577

Laminate			
Item	% of Laminate	Weight (g)	PPM
Laminate	75.0	2.77 E-02	163928
Solder mask	21.6	7.97 E-03	47211
Cu	3.0	1.11 E-03	6557
Nickel	0.3	1.11 E-04	656
Gold	0.1	3.69 E-05	219

Solder Ball			
	% of Plating	Weight (g)	PPM
Sn	62.0	1.99 E-02	117734
Ag	36.0	1.15 E-02	68362
Pb	2.00	6.42 E-04	3798

Bond Wires			
	% of Wire	Weight (g)	PPM
Au	99.00	1.76 E-03	10427
Pd	1.00	1.78 E-05	105

Chip			
	% of Chip	Weight (g)	PPM
Si	100.0	8.13 E-03	48136

Die Attach			
Item	% of Die Attach	Weight (g)	PPM
Ag Filler	70.0	8.40 E-04	4973
Diester	10.0	1.20 E-04	710
Functionalized ester	10.0	1.20 E-04	710
Polymeric resin	5.0	6.00 E-05	355
Epoxy resin	5.0	6.00 E-05	355

Weight (g)	PPM
1.69 E-01	1000000

Item	PPM	Method
Pb	Not Detected	USEPA3050B, ICP-AES
Cd	Not Detected	EN 1122 Method B:2001, ICP-AES
Hg	Not Detected	USEPA 3052, ICP-AES
Cr+6	Not Detected	USEPA 3060A & USEPA 7196A
PBB	Not Detected	Analysis was performed by GC/MS
PBDE	Not Detected	Analysis was performed by GC/MS

Die Attach		
Item	PPM	Method
Pb	5.00	US EPA Method 3052, ICP-OES
Cd	Not Detected	US EPA Method 3052, ICP-OES
Hg	Not Detected	US EPA Method 3052, ICP-OES
Cr+6	Not Detected	US EPA Method 3060A & 7196A, UV-VIS
PBB	Not Detected	Analysis was performed by GC/MS
PBDE	Not Detected	Analysis was performed by GC/MS

Laminate		
Item	PPM	Method
Pb	None Detected	US EPA Method 3052, ICP-OES
Cd	None Detected	US EPA Method 3052, ICP-OES
Hg	None Detected	US EPA Method 3052, ICP-OES
Cr+6	None Detected	US EPA Method 3060A & 7196A, UV-VIS
PBB	None Detected	Analysis was performed by GC/MS
PBDE	None Detected	Analysis was performed by GC/MS

Note: The information provided in this declaration are true to the best of ADI's knowledge.

ADI derived most of the information listed in this declaration from documents provided by third parties, and assumes no liability to any inaccuracy of such information.



ADI Proprietary

8/16/2006