

Materials Declaration

Package	CSP_BGA
Body Size	10 X 10
Ball Count	109
Option	96.5Sn/3Ag/0.5Cu
Ball Size	0.50 mm

Molding Compound			
Item	% of Compound	Weight (g)	PPM
SiO2 Filler	77.0	1.01 E+00	437857
Epoxy resin	10.0	1.32 E-01	56862
Phenol Resin	10.0	1.32 E-01	56862
Metal Hydroxide	2.5	3.29 E-02	14222
Carbon Black	0.5	6.58 E-03	2843

Laminate			
Item	% of Laminate	Weight (g)	PPM
BT-Epoxy	27.0	2.31 E-01	99675
Glass Fiber	25.0	2.14 E-01	92292
Copper	18.0	1.54 E-01	66571
Solder Mask	11.0	9.40 E-02	40634
Nickel	11.0	9.40 E-02	40634
Gold	8.0	6.83 E-02	29525

Solder Ball			
Item	% of Solder Ball	Weight (g)	PPM
Sn	96.5	5.10 E-02	22029
Ag	3.0	1.58 E-03	685
Cu	0.5	2.64 E-04	114

Bond Wires			
Item	% of Wire	Weight (g)	PPM
Au	99.99	2.47 E-03	1066

Chip			
Item	% of Chip	Weight (g)	PPM
Si	100.0	1.30 E-02	5620

Die Attach			
Item	% of Die Attach	Weight (g)	PPM
Mixture of fused and amorphous silica	41.0	3.08 E-02	13328
Diester	25.0	1.88 E-02	8127
Functionalized ester	20.0	1.50 E-02	6502
Epoxy Resin	7.0	5.26 E-03	2276
Polymeric material	7.0	5.26 E-03	2276

Package Totals	
Weight (g)	PPM
2.31 E+00	1000000

Molding Compound		
Item	PPM	Method
Pb	None Detected	USEPA3050B, ICP-AES
Cd	None Detected	EN 1122 Method B/2001, ICP-AES
Hg	None Detected	USEPA 3052, ICP-AES
Cr+6	None Detected	USEPA 3060A & USEPA 7196A
PBB	None Detected	Analysis was performed by GC/MS
PBDE	None Detected	Analysis was performed by GC/MS

Die Attach Paste		
Item	PPM	Method
Pb	None Detected	US EPA Method 3052, ICP-AES
Cd	None Detected	US EPA Method 3052, ICP-AES
Hg	None Detected	US EPA Method 3052, ICP-AES
Cr+6	None Detected	US EPA Method 3060A, UV-VIS
PBB	None Detected	Analysis was performed by HPLC/DAD/LC/MS or GC/MS.
PBDE	None Detected	Analysis was performed by HPLC/DAD/LC/MS or 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

9/22/06