

Materials Declaration

Package	CSP_BGA 2 layer
Body Size	12x12mm
LeadCount	74
Option	SnAgCu
Ball Size	0.6 mm

Molding Compound			
Item	% of Compound	Weight (g)	PPM
SiO2 Filler	87.0	1.50 E-01	360552
Epoxy resin	13.0	2.24 E-02	53842
Sb2O3	0.8	1.40 E-02	33652

Laminate			
Item	% of Laminate	Weight (g)	PPM
Laminate	63.2	6.80 E-02	163450
Cu	15.2	1.66 E-02	39901
Solder mask	13.2	1.44 E-02	34613
Nickel	4.6	5.50 E-03	13220
Brominated Compound	3.0	3.20 E-03	7692
Gold	0.8	9.00 E-04	2163

Solder Ball			
	% of Plating	Weight (g)	PPM
Sn	96.5	7.52 E-02	180757
Ag	3.0	2.30 E-03	5528
Cu	0.50	4.00 E-04	961

Bond Wires			
	% of Wire	Weight (g)	PPM
Au	99.99	1.94 E-03	4673

Chip			
	% of Chip	Weight (g)	PPM
Si	100.0	3.60 E-02	86496

Die Attach			
Item	% of Die Attach	Weight (g)	PPM
Filler	75.0	3.90 E-03	9374
Resin	25.0	1.30 E-03	3125

Weight (g)	PPM
4.16 E-01	1000000

Mold Compound		
Item	PPM	Method
Pb	8.20	EPA 3052
Cd	Not Detected	EPA 3052
Hg	Not Detected	EPA 3052
Cr+6	Not Detected	EPA 3060A
PBB	Not Detected	Analysis was performed by GC/MS
PBDE	Not Detected	Analysis was performed by GC/MS

Die Attach		
Item	PPM	Method
Pb	Not Detected	EPA 3050B
Cd	Not Detected	BSEN 1122:2001B
Hg	Not Detected	Mercury Analyzer
Cr+6	Not Detected	EPA 3060A

Laminate		
Item	PPM	Method
Pb	Not Detected	EPA 3050B
Cd	Not Detected	EN 1122B
Hg	Not Detected	EPA 3052
Cr+6	Not Detected	EPA 3060A
PBB	Not Detected	Analysis was performed by GC/MS
PBDE	Not 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.



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7/11/2006

Materials Declaration

Package	CSP BGA 2 layer
Body Size	12 X 12
Ball Count	74
Option	SnPb
Ball Size	0.6 mm

Molding Compound

Item	% of Compound	Weight (g)	PPM
SiO2 Filler	89.0	1.54 E-01	366570
Resin	11.0	1.91 E-02	45376
Brominated Compound	0.9	1.60 E-03	3801
Sb2O3	0.5	9.00 E-04	2138

Laminate

Item	% of Laminate	Weight (g)	PPM
BT-Epoxy	63.2	6.88 E-02	163448
Copper	15.2	1.66 E-02	39437
Solder Mask	13.2	1.44 E-02	34210
Nickel	4.6	5.50 E-03	13066
Brominated Compound	2.9	3.20 E-03	7602
Gold	0.8	9.00 E-04	2138

Solder Ball

	% of Solder Ball	Weight (g)	PPM
Sn	63.0	5.83 E-02	138503
Pb	37.0	3.43 E-02	81486

Bond Wires

	% of Wire	Weight (g)	PPM
Au	99.9	1.94 E-03	4619

Chip

	% of Chip	Weight (g)	PPM
Si	100.0	3.60 E-02	85489

Die Attach

Item	% of Die Attach	Weight (g)	PPM
Ag Filler	77.0	3.90 E-03	9265
Resin	23.0	1.20 E-03	2851

Package Totals

Weight (g)	PPM
4.21E-01	1000000

Molding Compound

Item	PPM	Method
Pb	1.50	ICP-MS
Cd	< 0.1	ICP-MS
Hg	< 0.1	ICP-MS
Cr+6**	12.9*	ICP-MS

** Cr+6 Included in the *total Cr conten

Die Attach Paste

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	Not Detected	EPA 3050B
Cd	Not Detected	EN 1122B
Hg	Not Detected	EPA 3052
Cr+6	Not Detected	EPA 3060A
PBB	Not Detected	Analysis was performed by GC/MS
PBDE	Not Detected	Analysis was performed by GC/MS

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7/31/06