

Materials Declaration

Package	CSPBGA
Body Size	8 X 8
Ball Count	64
Option	Pb-free
Ball Size	0.60 mm

Molding Compound			
Item	% of Compound	Weight (g)	PPM
SiO2 Filler	86.2	6.05 E-02	355211
Epoxy resin	6.0	4.21 E-03	24722
Phenol Resin	6.0	4.21 E-03	24722
Metal Hydroxide	1.5	1.05 E-03	6183
Carbon Black	0.3	2.11 E-04	1239
		7.02 E-02	412077

Laminate			
Item	% of Laminate	Weight (g)	PPM
BT Resin	27.0	1.67 E-02	98241
Glass fiber	25.0	1.55 E-02	90965
Cu	18.0	1.12 E-02	65492
Ni	11.0	6.82 E-03	40024
Soldermask	11.0	6.82 E-03	40024
Au	8.0	4.96 E-03	29108
		6.20 E-02	363855

Solder Ball			
Item	% of Solder Ball	Weight (g)	PPM
Sn	96.5	2.18 E-02	128100
Ag	3.0	6.78 E-04	3981
Cu	0.5	1.13 E-04	664
		2.26 E-02	132745

Bond Wires			
Item	% of Wire	Weight (g)	PPM
Au	99.99	5.30 E-04	3112

Chip			
Item	% of Chip	Weight (g)	PPM
Si	100.0	1.35 E-02	79127

Die Attach			
Item	% of Die Attach	Weight (g)	PPM
Ag	75.0	1.16 E-03	6818
Diester	12.0	1.86 E-04	1092
Epoxy resin	5.0	7.70 E-05	452
Functionalized ester	5.0	7.70 E-05	452
Functionalized urethane	3.0	4.60 E-05	270
		1.55 E-03	9084

Package Totals		
Weight (g)	PPM	
1.70 E-01	1000000	

Molding Compound		
Item	PPM	Method
Pb	Not Detected	USEPA3052, ICP-OES
Cd	Not Detected	USEPA3052, ICP-OES
Hg	Not Detected	USEPA3052, ICP-OES
Cr+6	Not Detected	USEPA 3060A & USEPA 7196A
PBB	Not Detected	USEPA 3540C/3550C. Analysis was performed by GC/MS
PBDE	Not Detected	USEPA 3540C/3550C. Analysis was performed by GC/MS

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	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

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

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Package	CSPBGA
Body Size	8 X 8
Ball Count	64
Option	Standard
Ball Size	0.60 mm

Molding Compound			
Item	% of Compound	Weight (g)	PPM
Silica fused	75.5	5.30 E-02	305550
Phenol & Epoxy resin	20.0	1.40 E-02	80940
Antimony Oxide	3.0	2.11 E-03	12140
Carbon black	1.5	1.05 E-03	6073
		7.02 E-02	404702

Laminate			
Item	% of Laminate	Weight (g)	PPM
BT Resin	27.0	1.67 E-02	96483
Glass fiber	25.0	1.55 E-02	89337
Cu	18.0	1.12 E-02	64320
Ni	11.0	6.82 E-03	39308
Soldermask	11.0	6.82 E-03	39308
Au	8.0	4.96 E-03	28587
		6.20 E-02	357343

Solder Ball			
Item	% of Solder Ball	Weight (g)	PPM
Sn	62.0	1.59 E-02	91754
Pb	36.0	9.24 E-03	53276
Ag	2.0	5.13 E-04	2958
		2.57 E-02	147988

Bond Wires			
Item	% of Wire	Weight (g)	PPM
Au	99.99	5.30 E-04	3057

Chip			
Item	% of Chip	Weight (g)	PPM
Si	100.0	1.35 E-02	77711

Die Attach			
Item	% of Die Attach	Weight (g)	PPM
Ag	70.0	1.12 E-03	6436
Epoxy resin	20.0	3.19 E-04	1840
Amine	5.0	8.00 E-05	461
Silane	5.0	8.00 E-05	461
		1.60 E-03	9198

Package Totals	
Weight (g)	PPM
1.73 E-01	1000000

Molding Compound		
Item	PPM	Method
Pb	Not Detected	USEPA3052, ICP-OES
Cd	Not Detected	USEPA3052, ICP-OES
Hg	Not Detected	USEPA3052, ICP-OES
Cr+6	Not Detected	USEPA 3060A & USEPA 7196A
PBB	Not Detected	USEPA 3540C/3550C. Analysis was performed by GC/MS
PBDE	Not Detected	USEPA 3540C/3550C. Analysis was performed by GC/MS

Die Attach Paste		
Item	PPM	Method
Pb	Not Detected	USEPA3052, ICP-OES
Cd	Not Detected	USEPA3052, ICP-OES
Hg	Not Detected	USEPA3052, ICP-OES
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