

Materials Declaration

Package	CSP_BGA
Body Size	17 X 17 mm
Ball Count	316
Option	96.5Sn/3Ag/0.5Cu
Ball Size	0.45 mm

Molding Compound			
Item	% of Compound	Weight (g)	PPM
SiO2 Filler	86.2	8.36 E-01	634410
Epoxy resin	6.0	5.83 E-02	44158
Phenol Resin	6.0	5.83 E-02	44158
Metal Hydroxide	1.5	1.46 E-02	11040
Carbon Black	0.3	2.92 E-03	2208
Subtotal		9.72 E-01	735974

Laminate			
Item	% of Laminate	Weight (g)	PPM
BT Resin	27.0	5.02E-02	38025
Glass fiber	25.0	4.65E-02	35209
Cu	18.0	3.35E-02	25350
Ni	11.0	2.05E-02	15492
Soldermask	11.0	2.05E-02	15492
Au	8.0	1.49E-02	11267
		1.86E-01	140835

Solder Ball			
Item	% of Solder Ball	Weight (g)	PPM
Sn	96.5	1.08 E-01	81555
Ag	3.0	3.35 E-03	2536
Cu	0.5	5.58 E-04	423
Subtotal		1.12 E-01	84514

Bond Wires			
Item	% of Wire	Weight (g)	PPM
Au	99.99	6.51 E-03	4932

Chip			
Item	% of Chip	Weight (g)	PPM
Si	100.0	2.65 E-02	20041

Die Attach			
Item	% of Die Attach	Weight (g)	PPM
Silver	75.0	1.36 E-02	10279
Diester	12.0	2.17 E-03	1645
Epoxy resin	5.0	9.05 E-04	685
Functionalized ester	5.0	9.05 E-04	685
Functionalized urethane	3.0	5.43 E-04	411
Subtotal		1.81 E-02	13705

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

Molding Compound		
Item	PPM	Method
Pb	Not Detected	EPA Method 3051A/3052. ICP-OES
Cd	Not Detected	EPA Method 3051A/3052. ICP-OES
Hg	Not Detected	EPA Method 3051A/3052. ICP-OES
Cr+6	Not Detected	EPA Method 3060A & 7196A. UV-VIS
PBB	Not Detected	EPA 3540C/3550C. Analysis was performed by GC/MS
PBDE	Not Detected	EPA 3540C/3550C. Analysis was performed by GC/MS

Die Attach Paste		
Item	PPM	Method
Pb	Not Detected	EPA Method 3051A/3052. ICP-OES
Cd	Not Detected	EPA Method 3051A/3052. ICP-OES
Hg	Not Detected	EPA Method 3051A/3052. ICP-OES
Cr+6	Not Detected	EPA Method 3060A & 7196A. UV-VIS
PBB	Not Detected	EPA 3540C/3550C. Analysis was performed by GC/MS
PBDE	Not Detected	EPA 3540C/3550C. 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.



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