



Materials Declaration

Package	CSP BGA
Body Size	12 X 12
Ball Count	291
Option	SnAgCu
Ball Size	0.30 mm

Molding Compound			
Item	% of Compound	Weight (g)	PPM
SiO2 Filler	86.20	1.36 E-01	441144
Epoxy resin	6.00	9.47 E-03	30707
Phenol Resin	6.00	9.47 E-03	30707
Metal Hydroxide	1.50	2.37 E-03	7675
Carbon Black	0.30	4.74 E-04	1536
Subtotal		1.58 E-01	511771

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

Laminate			
Item	% of Laminate	Weight (g)	PPM
BT Resin	25.00	2.22 E-02	71826
Glass fiber	25.00	2.22 E-02	71826
Copper	19.00	1.68 E-02	54586
Soldermask	12.20	1.08 E-02	35051
Nickel	11.00	9.75 E-03	31602
Gold	7.80	6.91 E-03	22410
Subtotal		8.86 E-02	287299

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

Solder Ball			
	% of Solder Ball	Weight (g)	PPM
Sn	96.50	2.94 E-02	95256
Ag	3.00	9.14 E-04	2962
Cu	0.50	1.52 E-04	493
Subtotal		3.05 E-02	98712

Bond Wires			
	% of Wire	Weight (g)	PPM
Au	99.99	6.11 E-03	19817

Chip			
	% of Chip	Weight (g)	PPM
Si	100.0	2.28 E-02	73913

Die Attach Material			
Item	% of Die Attach	Weight (g)	PPM
Silver	66.1	1.73 E-03	5614
Polymeric material	16.5	4.33 E-04	1403
Acrylate resin	6.2	1.62 E-04	525
Diester resin	6.2	1.62 E-04	525
Functionalized urethane resin	2.5	6.50 E-05	211
Epoxy resin	2.5	6.50 E-05	211
Subtotal		2.62 E-03	8489

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

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

