



Materials Declaration

Package	CSP BGA
Body Size	12 X 12
Ball Count	256
Option	Pb-Free
Ball Size	0.4 mm

Molding Compound				
Item	% of Compound	Weight (g)	PPM	
Epoxy resin	7	2.39 E-02	25020	
SiO2 Filler	85	2.90 E-01	303818	
Phenol Resin	6.5	2.22 E-02	23233	
Carbon Black	0.5	1.70 E-03	1787	
Metal Hydroxide	1	3.41 E-03	3574	

Molding Compound		
Item	PPM	Method
Pb	<2.0	EPA method #3052 (ICPAES)
Cd	<2.0	BS EN 1122:2001B (ICPaes)
Hg	<2.0	Mercury Analyser
Cr+6	<2.0	EPA method #3060A(UV)

Laminate				
Item	% of Laminate	Weight (g)	PPM	
BT-Epoxy	28	9.59 E-02	100571	
Glass Fiber	25	8.57 E-02	89796	
Copper	19	6.51 E-02	68245	
Gold	11	3.77 E-02	39510	
Nickel	7.8	2.67 E-02	28016	
Solder Mask	9.35	3.20 E-02	33584	
Brominated Compound	Confidential Not Determined			

Die Attach Paste		
Item	PPM	Method
Pb	<5.0	ICP-AES
Cd	<5.0	ICP-AES
Hg	<5.0	ICP-AES
Cr+6	<5.0	ICP-AES

Solder Ball				
Item	% of Solder Ball	Weight (g)	PPM	
Sn	96.5	2.35 E-01	246036	
Ag	3	7.30 E-03	7649	
Cu	0.5	1.22 E-03	1275	

Laminate		
Item	PPM	Method
Pb	<14	
Cd	<2.0	
Hg	<2.0	
Cr+6	<19	
PBB	Not Detected	
PBDE	Not Detected	

Bond Wires				
Item	% of Wire	Weight (g)	PPM	
Au	99.99	7.38 E-03	7733	

Chip				
Item	% of Chip	Weight (g)	PPM	
Si	100	1.68 E-02	17565	

Die Attach				
Item	% of Die Attach	Weight (g)	PPM	
Resin	24	5.92 E-04	621	
Ag Filler	76	1.88 E-03	1967	

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

STS-BC-E

Note: The information provided in this declaration are true to the best of ADI's knowledge
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ADI Proprietary

7/21/04



Materials Declaration

Package	CSP BGA
Body Size	17 X 17
Ball Count	256
Option	SnPbAg
Ball Size	0.6 mm

Molding Compound				
Item	% of Compound	Weight (g)	PPM	
Silica	90	3.00 E-01	317305	
epoxy resin	4.8	1.60 E-02	16923	
Phenol resin	3.9	1.31 E-02	13785	
Antimony trioxide	0.7	2.30 E-03	2433	
Bromine	0.6	2.00 E-03	2115	

Molding Compound		
Item	PPM	Method
Cd	<5	BS EN 1122:2001B (ICPaes)

Laminate				
Item	% of Laminate	Weight (g)	PPM	
BT-Epoxy	28	9.59 E-02	101333	
Glass Fiber	25	8.57 E-02	90476	
Copper	19	6.51 E-02	68762	
Gold	11	3.77 E-02	39810	
Nickel	7.8	2.67 E-02	28229	
Solder Mask	9.35	3.20 E-02	33838	
Brominated Compound	Confidential	Not Determined		

Die Attach Paste		
Item	PPM	Method
Pb	<5.0	ICP-AES
Cd	<5.0	ICP-AES
Hg	<5.0	ICP-AES
Cr+6	<5.0	ICP-AES

Solder Ball				
	% of Solder ball	Weight (g)	PPM	
Sn	62	1.51 E-01	159273	
Pb	36	8.76 E-02	92481	
Ag	2	4.86 E-03	5138	

Laminate		
Item	PPM	Method
Pb	<14	
Cd	<2.0	
Hg	<2.0	
Cr+6	<19	
PBB	Not Detected	
PBDE	Not Detected	

Bond Wires				
	% of Wire	Weight (g)	PPM	
Au	99.99	7.38 E-03	7792	

Chip				
	% of Chip	Weight (g)	PPM	
Si	100	1.68 E-02	17698	

Die Attach				
Item	% of Die Attach	Weight (g)	PPM	
Resin	23	5.68 E-04	600	
Ag Filler	77	1.90 E-03	2008	

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

STS-BC-A

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