Materials Declaration

Package	CSP BGA
Body Size	10 X 10
Ball Count	108
Option	SnPbAg
Ball Size	0.45

Molding Compound

Item	% of Compound	Weight (g)	PPM
Epoxy resin	13.7	1.12 E-02	52569
SiO2 Filler	85	6.96 E-02	326159
Sb2O3	1	8.19 E-04	3837
Carbon Black	0.3	2.46 E-04	1151

Molding Compound

Item	PPM	Method
Pb	<10	ICP-AES
Cd	<5	ICP-AES
Hg	<10	ICP-AES
Cr+6	<10	ICP-AES

Laminate

Item	% of Laminate	Weight (g)	PPM
BT Resin	46	3.48 E-02	163039
Copper (Cu)	33.406	2.55 E-02	119495
Main agent	7.11	5.43 E-03	25433
Hardener	3.049	2.33 E-03	10906
Copper (Cu)	0.672	5.13 E-04	2404
Nickel (Ni)	7.445	5.69 E-03	26631
Gold (Au)	1.742	1.33 E-03	6231

Solder Ball

	% of Solder Ball	Weight (g)	PPM
Sn	62	3.06 E-02	143415
Pb	36	1.78 E-02	83273
Ag	2	9.88 E-04	4626

Bond Wires

	% of Wire	Weight (g)	PPM
Au	99.99	1.14 E-03	5318

Chip

	% of Chip	Weight (g)	PPM
Si	100	5.12 E-03	23982

Die Attach

Item	% of Die Attach	Weight (g)	PPM
Ag Filler	80	2.61 E-04	1222
Resin	20	6.53 E-05	306

Package Totals

Weight (g)	PPM
2.14 E-01	1000000

AST-BC-B

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.

ANALOG DEVICES

ADI Proprietary

2/2/05