



100% Material Declaration Data Sheet FSG48

PK104 (v1.5) June 10, 2011

Average Weight: 0.145 g

Component	Substance Description	CAS Number or Description	Percentage of Component	Use in Product	Component Weight/ Substance Weight (grams)	Component Percent of Total
Silicon Die (FPGA)					0.016285	11.23
	Silicon (Si)	7440-21-3	99.91	Silicon IC	0.016270	
	Aluminium(Al)	7429-90-5	0.04	Silicon IC	0.000007	
	Copper (Cu)	7440-50-8	0.02	Silicon IC	0.000004	
	Titanium (Ti)	7440-32-6	0.02	Silicon IC	0.000004	
Die Attach					0.001747	1.20
	Silver (Ag)	7440-22-4	75.00	Glue	0.001310	
	Epoxy Cresol Novolak	29690-82-2	24.80	Glue	0.000433	
	Diisobutyrate derivate	6846-50-0	0.20	Glue	0.000003	
Bonding Wire					0.000397	0.27
	Gold (Au)	7440-57-5	100.00	Wire	0.000397	
Molding Compound					0.079208	54.63
	Biphenyl epoxy resin	85954-11-6	12.00	Encapsulation	0.009505	
	Phenol resin	9003-35-4	7.00	Encapsulation	0.005545	
	Quartz	14808-60-7	2.50	Encapsulation	0.001980	
	Silica, vitreous	60676-86-0	77.00	Encapsulation	0.060990	
	Carbon black	1333-86-4	0.50	Encapsulation	0.000396	
	Antimony Trioxide	1309-64-4	0.50	Encapsulation	0.000396	
Brominated epoxy resin (Halogen)	Trade secret	0.50	Encapsulation	0.000396		
Solder Balls					0.011790	8.13
	Tin	7440-31-5	98.27	Base metal	0.011586	
	Silver	7440-22-4	1.20	Base metal	0.000141	
	Copper	7440-50-8	0.50	Base metal	0.000059	
	Nickel (Ni)	7440-02-0	0.02	Base metal	0.000002	
	Lead (Pb)	7439-92-1	0.01	Impurity	0.000001	

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Component	Substance Description	CAS Number or Description	Percentage of Component	Use in Product	Component Weight/ Substance Weight (grams)	Component Percent of Total
Substrate						
Core & Fiber Glass					0.017280	11.92
	Fiberglass	65997-17-3	43.00	Substrate	0.007430	
	Epoxy Cresol Novolak	29690-82-2	10.00	Substrate	0.001728	
	Bisphenol epoxy resin	25068-38-6	10.00	Substrate	0.001728	
	Brominated compound (Halogen)	68541-56-0	7.00	Substrate	0.001210	
	Bismaleimide (B)	13676-54-5	14.50	Substrate	0.002506	
	Triazine (T)	25722-66-1	14.50	Substrate	0.002506	
	Magnesium silicate	13776-74-4	0.50	Substrate	0.000086	
	Amorphous Silica	7631-86-9	0.50	Substrate	0.000086	
Solder Mask					0.003224	2.22
	Barium sulfate	7727-43-7	10.00	Substrate	0.000322	
	Dipropylene glycol monomethyl	34590-94-8	1.00	Substrate	0.000032	
	Talc containing no asbestiform fibers	14807-96-6	3.15	Substrate	0.000102	
	Silica crystalline	14808-60-7	0.45	Substrate	0.000015	
	2-(2-Ethoxyethoxy)ethyl Acetate	112-15-2	42.00	Substrate	0.001354	
	Acrylates derivative	407-47-6	43.00	Substrate	0.001386	
	Ammine compound	Trade secret	0.40	Substrate	0.000013	
Coating					0.015068	10.39
	Copper	7440-50-8	98.27	Substrate	0.014807	
	Nickel	7440-02-0	1.37	Substrate	0.000207	
	Gold	7440-57-5	0.36	Substrate	0.000055	

Revision History

The following table shows the revision history for this document.

Date	Version	Description of Revisions
3/20/06	1.0	Initial Xilinx release.
5/10/06	1.1	100% Material Declaration
9/21/06	1.2	Updated component descriptions
8/1/07	1.3	Updated component descriptions, per XCN06024
1/28/11	1.4	Updated component descriptions
6/10/11	1.5	Updated component descriptions

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