



PK152 (v1.3) December 23,  
2011

# 100% Material Declaration Data Sheet for FG320 Package

**Average Weight: 1.3805 g**

Component	Substance Description	CAS# or Description	% of Component	Use in Product	Component Weight/ Substance Weight (in grams)	Component % of Total
<b>Silicon Die</b>					<b>0.046403</b>	<b>3.361</b>
	Silicon	7440-21-3	100.00		0.046403	
<b>Die Attach Material</b>					<b>0.008456</b>	<b>0.613</b>
	Silver (Ag)	7440-22-4	77.50		0.006553	
	Bismaleimide monomer	Trade Secret	15.00		0.001268	
	Acrylate monomer	Trade Secret	7.50		0.000634	
<b>Mold Compound</b>					<b>0.406264</b>	<b>29.428</b>
	Epoxy Resin A	Trade Secret	3.00		0.012188	
	Epoxy Resin B	Trade Secret	3.00		0.012188	
	Phenol Resin A	Trade Secret	3.00		0.012188	
	Phenol Resin B	Trade Secret	3.00		0.012188	
	Metal Hydroxide	Trade Secret	1.50		0.006094	
	Carbon black	1333-86-4	0.30		0.001219	
	Silica fused	60676-86-0	70.90		0.288041	
	Silica fused	7631-86-9	15.00		0.060940	
	Silica, crystalline	14808-60-7	0.30		0.001219	
<b>Gold Wire</b>					<b>0.012251</b>	<b>0.887</b>
	Gold (Au)	7440-57-5	99.048		0.012134	
	Palladium	7440-05-3	0.950		0.000116	
	Calcium	7440-70-2	0.002		0.000000	
<b>Solder Balls</b>					<b>0.304575</b>	<b>22.062</b>
	Tin (Sn)	7440-31-5	63.00		0.191882	
	Lead (Pb)	7439-92-1	37.00		0.112693	

Component	Substance Description	CAS# or Description	% of Component	Use in Product	Component Weight/ Substance Weight (in grams)	Component % of Total
Substrate					<b>0.602586</b>	<b>43.649</b>
	Copper (Cu)	7440-50-8	17.76		0.107037	
	Nickel (Ni)	7440-02-0	5.89		0.035477	
	Gold (Au)	7440-57-5	0.70		0.004242	
	Glass Fiber	65997-17-3	21.16		0.127520	
	Halogen Fire Retardant	N/A	0.10		0.000605	
	Laminate	13676-54-5 25722-66-1 29690-82-2 26265-08-7 13776-74-4 7631-86-9 7440-50-8	43.48		0.262029	
	Solder mask	64742-94-5 14807-96-6 7727-43-7 7631-86-9 34590-94-8	10.90		0.065676	

## Revision History

The following table shows the revision history for this document.

Date	Version	Description of Revisions
3/21/06	1.0	Initial Xilinx release.
7/11/06	1.1	100% Material Declaration.
9/21/06	1.2	Updated component descriptions.
12/23/11	1.3	Updated component weights and descriptions.

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