



PK518 (v1.1) March 19, 2012

## 100% Material Declaration Data Sheet for Spartan®-3E/-3A FG400 (Cu Wire) Package

**Average Weight: 1.9857 g**

Component	Substance Description	CAS# or Description	% of Component	Use in Product	Component Weight/ Substance Weight (in grams)	Component % of Total
Silicon Die					<b>0.043305</b>	<b>2.181</b>
	Silicon	7440-21-3	100.00		0.043305	
Die Attach Material					<b>0.007922</b>	<b>0.399</b>
	Silver	7440-22-4	77.50		0.006140	
	Bismaleimide monomer	Trade Secret	15.00		0.001188	
	Acrylate monomer	Trade Secret	7.50		0.000594	
Mold Compound					<b>0.801770</b>	<b>40.378</b>
	Epoxy Resin	Trade Secret	5.00		0.040089	
	Phenol Resin	Trade Secret	3.00		0.024053	
	Phenol Novolac	9003-35-4	3.00		0.024053	
	Metal Hydroxide	Trade Secret	3.00		0.024053	
	Carbon black	1333-86-4	0.30		0.002405	
	Silica fused	60676-86-0	70.40		0.564446	
	Silicon Dioxide	7631-86-9	15.00		0.120266	
	Silica, crystalline	14808-60-7	0.30		0.002405	
Copper Wire					<b>0.010151</b>	<b>0.511</b>
	Copper	7440-50-8	97.28		0.009875	
	Palladium	7440-05-3	2.70		0.000274	
	Impurities	NA	0.02		0.000002	
Solder Balls					<b>0.380719</b>	<b>19.173</b>
	Tin (Sn)	7440-31-5	63.00		0.239853	
	Lead (Pb)	7439-92-1	37.00		0.140866	

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Component	Substance Description	CAS# or Description	% of Component	Use in Product	Component Weight/ Substance Weight (in grams)	Component % of Total
Substrate					0.741802	37.358
	Copper (Cu)	7440-50-8	27.09		0.200979	
	Nickel (Ni)	7440-02-0	5.06		0.037504	
	Gold (Au)	7440-57-5	0.36		0.002691	
	Glass fiber	65997-17-3	18.79		0.139359	
	Non halogen fire retardant	1675-54-3	0.01		0.000072	
	BT (core)	105391-33-1 25722-66-1 9003-36-5 21645-51-2 7440-38-2	38.60		0.286357	
	Solder mask	13676-54-5 25722-66-1 147-14-8 7727-43-7 61790-53-2 14807-96-6 461-58-5 7723-14-0	10.09		0.074840	

## Revision History

The following table shows the revision history for this document.

Date	Version	Description of Revisions
09/16/11	1.0	Initial Xilinx release.
03/19/12	1.1	Device family update.

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