



PK516 (v1.1) March 19, 2012

# 100% Material Declaration Data Sheet for Spartan®-3E/-3A FGG400 (Cu Wire) Package

**Average Weight: 1.9400 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>0.043305</b>	<b>2.232</b>
	Silicon	7440-21-3	100.00		0.043305	
<b>Die Attach Material</b>					<b>0.007922</b>	<b>0.408</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	
<b>Mold Compound</b>					<b>0.801770</b>	<b>41.328</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	
	Silica Dioxide	7631-86-9	15.00		0.120266	
	Silica, crystalline	14808-60-7	0.30		0.002405	
<b>Copper Wire</b>					<b>0.010151</b>	<b>0.523</b>
	Copper	7440-50-8	97.28		0.009875	
	Palladium	7440-05-3	2.70		0.000274	
	Impurities	NA	0.02		0.000002	
<b>Solder Balls</b>					<b>0.335050</b>	<b>17.271</b>
	Tin (Sn)	7440-31-5	95.50		0.319973	
	Silver (Pb)	7440-22-4	4.00		0.013402	
	Copper (Cu)	7440-50-8	0.50		0.001675	

© Copyright 2011-2012 Xilinx, Inc. XILINX, the Xilinx logo, Virtex, Spartan, ISE, and other designated brands included herein are trademarks of Xilinx in the United States and other countries. All other trademarks are the property of their respective owners

Component	Substance Description	CAS# or Description	% of Component	Use in Product	Component Weight/ Substance Weight (in grams)	Component % of Total
Substrate					0.741802	38.237
	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.

## Notice of Disclaimer

Xilinx regards this materials data to be correct but makes no guarantee as to its accuracy or completeness, including, but not limited to, with respect to its compliance with applicable environmental laws and regulations. Xilinx subcontracts the production, test and assembly of hardware devices to independent third-party vendors and materials suppliers (“Contractors”). All data provided hereunder is based on information received from Contractors. Xilinx has not independently verified the accuracy or completeness of this information which is provided solely for your reference in connection with the use of Xilinx products.