



PK512 (v1.1) March 19, 2012

# 100% Material Declaration Data Sheet for Spartan®-3E/-3A FG484 (Cu Wire) Package

**Average Weight: 2.347 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>1.845</b>
	Silicon	7440-21-3	100.00		0.043305	
<b>Die Attach Material</b>					<b>0.007922</b>	<b>0.337</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>0.811873</b>	<b>34.587</b>
	Solid Epoxy Resin	Trade Secret	5.00		0.040594	
	Phenol Resin	Trade Secret	3.00		0.024356	
	Phenol Novolac	9003-35-4	3.00		0.024356	
	Metal Hydroxide	Trade Secret	3.00		0.024356	
	Carbon Black	1333-86-4	0.30		0.002436	
	Silica fused	60676-86-0	70.40		0.571558	
	Silica Dioxide	7631-86-9	15.00		0.121781	
	Silica, crystalline	14808-60-7	0.30		0.002436	
<b>Copper Wire</b>					<b>0.005455</b>	<b>0.232</b>
	Copper	7440-50-8	97.28		0.005307	
	Palladium	7440-05-3	2.70		0.000147	
	Impurities	NA	0.02		0.000001	
<b>Solder Balls</b>					<b>0.460670</b>	<b>19.625</b>
	Tin (Sn)	7440-31-5	63.00		0.290222	
	Lead (Pb)	7439-92-1	37.00		0.170448	

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Substrate					1.018112	43.373
	Copper (Cu)	7440-50-8	27.90		0.284063	
	Nickel (Ni)	7440-02-0	5.55		0.056523	
	Gold (Au)	7440-57-5	0.40		0.004055	
	Glass fiber	65997-17-3	19.51		0.198648	
	Non halogen fire retardant	NA	0.01		0.000102	
	BT (core)	21645-51-2 105391-33-1 25722-66-1 9003-36-5 21645-51-2	40.09		0.408186	
	Solder mask	14807-96-6 7727-43-7 7631-86-9 34590-94-8 85954-11-6	6.54		0.066535	

## 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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