



Conversion to Green Material Set (Mold Compound & Die Attach Material)

PCN2003-11 (v1.1) December 6, 2004

Product/Process Change Notice

Overview

This notification is to inform you of a conversion to a green material set (mold compound & die-attach epoxy) for the following packages. The term “green” indicates more environmentally-friendly substances are used.

Description

This change is being initiated as part of a Xilinx’s roadmap towards offering green packaging solutions. Since this new green material set will also be used for future lead-free package offerings, Xilinx will be able to standardize our material set.

The new green material set has the following characteristics:

- Halogen-free (no bromine, chlorine, etc.)
- Meets Moisture Sensitivity (MSL) Level 3 per JEDEC standard J-STD-020B. Note some product in PC packages currently meet MSL 1 but will only meet MSL 3 as a result of this change.
- Meets UL94 V-0 flammability requirements

Products Affected

All Xilinx products offered in the following packages will convert to the new green material set.

Package	Current Material Set		New Green Material Set	
	D/A Epoxy	Mold Compound	D/A Epoxy	Mold Compound
PC 20/44	Ablestik 8361J	Nitto MP8000	Sumitomo CRM1076E	Sumitomo G600
PC 68/84	Ablestik 8361J	Nitto MP8000	Ablestik 8361J	Sumitomo G600
TQ 100/144	Ablestik 8361J	Sumitomo 7320CR	Ablestik 3230	Sumitomo G700
VQ 44/64/100	Ablestik 8361J	Sumitomo 7320CR	Ablestik 3230	Sumitomo G700

Qualification Data

Test	Condition	Package	Sample Size	Results
Preconditioning	J-STD-020B Moisture Sensitivity Level-3	TQ144	304	Passed per J-STD-020B Criteria
		TQ100	76	
		VQ100	304	
		VQ64	152	
		PC84	152	
Temperature Cycle	JESD22-A104-B Condition C, -65°C to 150°C	TQ144	152	Zero failure after 500 cycles
		TQ100	76	
		VQ100	152	
		VQ64	76	
		PC84	76	
Temperature Humidity Test (Biased)	85°C/85%RH	TQ144	76	Zero failure after 1,000 hrs
		VQ100	76	

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Test	Condition	Package	Sample Size	Results
Temperature Humidity Test (Unbiased)	85°C/85%RH)	TQ144	76	Zero failure after 1,000 hrs
		TQ100	76	
		VQ100	152	
		VQ64	76	
		PC84	76	

Traceability

Product manufactured in the above listed packages on or after assembly date code 0449 (starting on November 27, 2004) will include the new material set. The date code can be found on the package topmark, see example of topmark below:

Example of a typical Xilinx package topmark:



Recommendation

No response is required to this PCN. For additional information or questions, please contact [Xilinx Technical Support](#).

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Revision History

The following table shows the revision history for this document.

Date	Version	Revision
12/17/03	1.0	Initial release of document.
12/6/04	1.1	<ul style="list-style-type: none"> Revise implementation date code from 0413 to 0449. Reformat document to match with templates currently being used.