

Product Review from **Environmental Building News**

Sansin and Vermont Natural Coatings Debut Low-VOC Stains

Two new low-VOC interior wood stain systems are arriving on the market: Vermont Natural Coatings' zero-VOC Woodtone Series Concentrated Tints with a zero-VOC base, and Sansin's Purity Interior 0-VOC Stain base with low-VOC Eco-Tone Color System tints. Both systems offer low-VOC options in a category known for high-VOC products.

Vermont Natural Coatings

Vermont Natural Coatings' new Woodtone Series Concentrated Tints meet South Coast Air Quality Management District (SCAQMD) zero-VOC criteria and neither the stain base nor the tints contain any hazardous air pollutants (HAPs).

Currently, Vermont Natural Coatings recommends the tints be mixed with water, oil, or one of its PolyWhey base products (see "Whey-Based Floor and Furniture Finishes," *EBN* June 2008). When mixed with PolyWhey, the stain contains between 118 g/L and 180 g/L VOCs (depending which PolyWhey product is chosen) and covers 500–600 ft² per gallon—with multiple coats achieving a darker color. The Woodtone Series Concentrated Tints come in eight colors, and custom colors are available for large orders.



Vermont Natural Coatings' Woodtone Series Concentrated Tints come in eight colors.

In spring 2011, Vermont Natural Coatings is adding a water-based, zero-VOC, non-grain-raising stain base to its lineup, according to Andrew Meyer, Vermont Natural Coatings' president. Meyer told *EBN* that demand for alternatives like these is growing as professionals become more aware of the dangers of solvent-based products. Meyer said that Vermont Natural Coatings' waterborne product achieves "the same look and color" of conventional finishes and has been well received.

Sansin

Sansin's new product, Purity Interior 0-VOC Stain base with Eco-Tone Color System tints, also meets current SCAQMD VOC limits. According to Sjoerd Bos, vice president of Sansin Corporation, the stain is most appropriate for "any interior wood surface, particularly dry wood, cabinets, furniture, and flooring," but not woods with higher moisture content.

According to Sansin, Purity Interior 0-VOC Stain is UV-resistant, dries quickly, is non-flammable, and can be applied with a sprayer. Eco-Tone Color System uses MicroFine tints—very finely ground "pure pigments"—which bond closely with the stain base and, according to Sansin, penetrate into the wood deeply.

Once mixed, Sansin's Purity Interior 0-VOC Stain system contains, at most, 7 g/L of VOCs, depending on the color, and covers about 400 ft² per gallon. The Eco-Tone Color System tints come in 16 colors, and custom colors are available. The product is water-soluble and low-odor, but appropriate ventilation should always be used.

"There is a buzz about this product," said Darryl Janzen, store manager at Janzen's Paint & Decorating in Manitoba, Canada. "It's nice that people can get a product that is low-VOC and has the



When mixed with their Eco-Tone Color System tints, Sansin's Purity Interior 0-VOC Stain base offers competitive performance in a low-VOC product.

performance," he said, adding that the Sansin product is one of the best wiping stains he has seen.

Untangling VOC Calculations

For both the EPA and SCAQMD, there are two different VOC classifications—standard and low-solids—depending on the amount of solids in a given product. Low-solids standards apply to products—such as stains and wood preservatives—with less than one pound of solids per gallon. For example, Sansin's new stain falls under the low-solids standard, while Vermont Natural Coatings' PolyWhey does not, hence the disparity between their VOC numbers.

The two calculations are similar, except that the one for standard products removes the water and exempt solvents before the VOCs are determined, while the one for low-solids products does not. To further complicate this, the standard VOC calculation is perhaps misnamed, as the regulatory VOC level, while the low-solids VOC calculation is the actual or material VOC level. For products that qualify as low solids, the actual (or material) VOCs can be used to meet SCAQMD or EPA regulations. All other products must use the regulatory VOCs.

– Emily Catacchio

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March 1, 2011

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