

Environmental Product Disclosure

VPI Static Control Flooring Products

Class I, Type A: Monolithic, Smooth Surface Vinyl Tile

ASTM Designation: F1700 – 13a

Section 15, Volume 15.04



VPI Facility: Setting the Standard

Minimal landfilling at less than 2% production waste. All product trim and rework is reused within the product, other products, or used within other manufacturing processes.

No heavy metals in pigments or stabilizers.

Adherence to all applicable guidelines of the State of Wisconsin's progressive environmental laws.

Use of closed-loop recycling water filtering processing.

Packaging containing up to 100% recycled content.

VPI Products: Sustainability for the Long Haul

Durability and outstanding quality provides a long life cycle, without the need to use new products.

No ESD waxing requirements means no environmental damage caused by corrosive stripping.

Products and adhesive with zero VOC emissions.

VPI Standards

Year after year, VPI maintains our commitment to strict eco-compatible manufacturing, packaging and recycling programs. In addition, all VPI compounds contain no asbestos, cadmium, CFCs, lead or formaldehyde.

Simply - at VPI, giving customers eco-friendly options is our way of doing business.



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This environmental product disclosure relies on Life Cycle Assessment (LCA), internal to VPI, to provide information on a number of environmental impacts of products over their life cycle.

Exclusions: This Environmental product disclosure does not indicate that any environmental or social performance benchmarks are met, and there may be additional impacts that this disclosure does not encompass. LCAs do not typically address the site-specific environmental impacts of raw material extraction, nor are they meant to assess human health toxicity. Environmental product disclosures can complement, but cannot replace, tools and certifications that are designed to address these impacts and/or set performance thresholds – e.g. Type 1 certifications, health assessments and declarations, environmental impact assessments, etc.

Accuracy of Results: This disclosure relies on VPI’s estimations of impacts, and the level of accuracy in estimation of effect differs for any particular product line and reported impact.

Comparability: Environmental product disclosures are not comparative assertions and are either not comparable or have limited comparability when they cover different life cycle stages, are based on different product category rules or are missing relevant environmental impacts. Disclosures from different programs may not be directly comparable.

PROGRAM OPERATOR	VPI
DECLARATION HOLDER	VPI
DECLARED PRODUCT	VPI Static Control and Premium Resilient Tile Product Lines
REFERENCE PRODUCTS	Flooring / Construction Products
DATE OF ISSUE	January, 2015
PERIOD OF VALIDITY	5 years (unless superseded by changes as listed at www.vpiflooring.com)
CONTENTS OF THIS DISCLOSURE	Product definition and information about building physics Information about basic materials and the materials’ origins Description of the product’s manufacture Indication of product processing Information about the in-use conditions Life cycle assessment results Testing results and verifications

The review was conducted by:	Harlan Reid, Director of Technical Services
The referenced life cycle assessment is self-certified by:	
	Harlan Reid
This environmental product disclosure is self-certified by:	
	Harlan Reid



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Manufacturer Information

VPI invented static control flooring more than 65 years ago and we are still pioneering flooring solutions today. VPI ESD static control flooring is the most specified in the industry.

Why? Because VPI offers the highest quality ESD tile on the market in terms of proven superior performance and guaranteed protection.

In addition, VPI static control tile is environmentally-friendly, emits zero detectable VOC's and can contribute to several LEED credits. VPI designs and manufactures a comprehensive assortment of products including static control flooring, premium commercial flooring, wall base, rubber flooring and accessories for customers all over the world.

For precision, quality, and the best warranty in the business, it's got to be VPI.

Environmental Management System

VPI's Leadership Team is focused on reducing and ultimately eliminating all waste during the manufacturing process. Equal focus is placed on reducing the energy required to manufacture and ship (in and out) all materials.

Environmental Practices and Policy

VPI is committed to sustainable manufacturing processes and environmental practices that help protect Earth by how we run our business and interface with employees, customers, suppliers and the wider community.

Since 1949, VPI's focus on quality means our products are durable and tough, with a very long life cycle in their intended applications. The result? A diminished need to extract new resources and expend energy in the manufacture of replacement products.

It's certainly no surprise that environmental concerns have come to the forefront of virtually every aspect of modern life. At VPI, we remain committed to this important directive, and fully understand the role we play working in partnership with our suppliers and customers.

We also understand that environmental responsibility is a complex subject, often requiring us to consider many different perspectives. When manufacturers tout the benefits of recycling, they often overlook the impact of the recycling process: Energy is consumed, waste is created, and additional resources are used.

Granted, this process may use less energy and resources than creating new products, but an overall negative impact on the environment is often the result. *So while recycling is typically presented as an environmentally responsible practice, there's a bigger question: Isn't continued use of a high-quality product better than recycling?* Preventing waste—not simply recycling waste—is the real solution to a healthy planet.

Unlike many flooring products available today, our tile lasts decades, not just a few years. And that means replacement and recycling isn't required. Instead, we offer sustainability, a solution that makes sense from financial and environmental perspectives.



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The products described in this document are manufactured in accordance with internal, general and subjective understanding of the potential deleterious impacts that can be ameliorated by processes that take into consideration:

- Global warming potential
- Depletion potential of the stratospheric ozone layer
- Acidification potential of land and water
- Formation potential of tropospheric ozone photochemical oxidants
- Smog formation potential
- Resource use
- Total use of non-renewable primary energy resources
- Reuse of contact water within certain processing steps
- Output flows and waste categories
- Non-hazardous waste disposed

Such considerations have resulted in the following:

Facility

- VPI's manufacturing process generates almost no waste for landfills (less than 2%). All product trim and rework is reused within the product, other products, or used within other manufacturing processes.
- No use of heavy metals in pigments or stabilizers.
- Compliance with the State of Wisconsin's progressive environmental and refuse laws.
- Recycle water used in the manufacturing process in a closed-loop system.
- Recycled packaging for our products, containing up to 100% recycled content.

- Durability and outstanding quality provides a long life cycle, without the need to use new products.
- No waxing requirements means no environmental impact from waxing, and no damage caused by corrosive stripping.
- Our products have zero to very low emissions of Volatile Organic Compounds (VOCs). (Please refer to our website for specific details.)
- No asbestos, cadmium, CFC's, lead or formaldehyde.

It should be noted that products described in this document are only comparable to other products if their analyses follow the same scope and method. Disclosures from different programs may not be directly comparable.



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Materials and Chemicals

While VPI does not release specific information about the proprietary materials used to produce VPI tiles, none are at levels considered harmful as defined by (a) Prop 65 or by (b) the Safe Harbor provisions of Prop 65. According to these two definitions, no materials used to produce VPI tiles are at levels known to cause cancer or reproductive toxicity according to California Safe Drinking Water Toxic Enforcement Act of 1986.

Material and Outgassing Specifications

Controlled Chemicals	Sample Description: VPI ESD Solid Vinyl Tile Manufacturer's Name: VPI Corporation Lot Number: N/A Expiration Date: N/A Instruction for use: ESD Floor Tile	Specification ng/cm ²
Sulfur Dioxide and Carbon Disulfide	ND	≤ 15
Siloxanes	ND	≤ 15
Amines (Tributylamine, N-phenyl Benzenamine)	ND	≤ 100
Ethyl Hexanol	15	≤ 1,000
Acrylic Acid and Methacrylic Acid	ND	≤ 1,200
2-Phenyl-2-Propanol (Dimethyl Benzene Methanol)	ND	≤ 4,000
Methacrylates/Alkyl Acrylates (HEMA, IBOMA, HPMA, Octyl Acrylate)	ND	≤ 1,100
BHT	ND	≤ 400
2-Ethyl Hexanoic Acid	ND	≤ 250
Amides (Acrylamide)	15	≤ 20
Organo Sulfur Compound (Benzothiazole)	8.3	≤ 30
Caprolactam	ND	≤ 1,500
Benzoic Acid	ND	≤ 1,000
Acetophenone (DMAP, CHAP)	196	≤ 1,300
Polyglycol, Dimethacrylate (TGDM, PhDMA)	ND	≤ 3,000
Other esters (DOP, DBP)	28	≤ 700
Dioctyl Sebacate	ND	≤ 100
Sulfur	ND	≤ 10
Organometallics (Tributyltin Chloride)	ND	≤ 10
Hydrocarbons	988	≤ 20,000
Other Acids	6.7	≤ 1,250
Alcohols, >C7	136	≤ 400
Hydroxybenzenes	379	≤ 400
Glycol Ethers	ND	≤ 200
N-substituted Pyrrolidone	ND	≤ 100
Other Compounds	136	≤ 1,000
Total Outgassing	1,900	≤ 40,000

ND = not detected

- CALGreen, CA Code Title 24, Part II, 2010, Sections 4.504.4/5.504.4.6: Resilient Flooring Systems
- ANSI/ASHRAE/USGBC/IES Standard 189.1-2009, Section 8.4.2.3: Floor Covering Materials
- USGBC LEED CI, NC, Schools, 2009, IEQ Credit 4.3: LEM Flooring Sys.
- SGBC LEED for Healthcare, 2009 (Feb 2011), IEQ Credit 4: LEM, Group 3, Flooring
- Collaborative for High Performance Schools (CHPS) 2009 Criteria EQ2.2.3: Flooring Systems
- Green Guide for Healthcare, V2.2, 2007, EQ Credit 4.3: LEM, Flooring System.



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Scope and Product Life Cycle

American made VPI tiles use high resin content / low filler content and are manufactured using high quality, high molecular weight resins that result in lower porosity and higher PSI capability. There are no lamination or factory applied coatings. High quality resins and American manufacturing assure long product cycles and lower greenhouse gas emissions.



Made in America Means Reducing Transportation Emissions and Creating A Smaller Carbon Footprint

Transportation is the fastest growing source of worldwide carbon dioxide emissions, after energy creation. Because *PRT Earthtones* is manufactured in America, carbon emissions associated with overseas production and global freight are eliminated. Consider these facts:



- More flooring manufacturers produce more of their products overseas.
- Ships continue to get bigger to meet global demands for transportation, and therefore produce more carbon dioxide.
- Carbon dioxide emissions from shipping are double those of aviation.

It is hard to equate any floor being transported around the world as being "green." Instead of offshore production and intercontinental shipping, consider that *PRT Earthtones* is exclusively produced in Sheboygan, Wisconsin, USA in one of the most environmentally responsible factories in the world.



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Product Specifications

SIZE

1. Square edge or pre-grooved tile 12"x 12" tiles, 24"x 24" tile, & 36"x 36"
2. Thickness 1/8" – 0.125 (3mm)

MANUFACTURING SPECIFICATIONS

1. See all ASTM specifications per the VPI web site: www.vpiflooring.com
2. Meets VPI specific VOC, wear through, durability and other performance standards without exception or deviation

PRE-INSTALLATION SPECIFICATIONS

1. See VPI ESD Installation and Maintenance instructions for substrate requirements, conditions and specifications.

INSTALLATION SPECIFICATIONS

1. See VPI ESD Installation and Maintenance instructions for all requirements.

INITIAL MAINTENANCE SPECIFICATIONS

1. See VPI ESD Installation and Maintenance instructions for all requirements.

RESISTANCE SPECIFICATIONS

1. Conductile © properties 25,000 ohms – 1,000,000 ohms
2. Statmate properties are 1,000,000 ohms – 100,000,000 ohm

Resistance (Ohms)

Conductile© with VPI 165 Adhesive, to Ground 2.1 X 10⁵

Conductile© with VPI 165 Adhesive, Point to Point 3.5 X 10⁵

Conductile© with VPI 150 Adhesive, to Ground 3.9 X 10⁵

Conductile© with VPI 150 Adhesive, Point to Point 5.8 X 10⁵

Note: data demonstrates that Conductile©, used in conjunction with VPI adhesives, consistently meets S7.1 requirements for a conductive ESD flooring. (Test data available upon request).

WARRANTY INFORMATION

1. Lifetime warranty on electrical resistance.
2. 25 year wear-through warranty
3. 75 year warranty free from defects in workmanship and materials



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Additional Information

All VOCs are at parts per trillion level and fall below the maximums set forth in SEMI F21-1102 classifications: MA-1,000, MB-1, MC-10,000 and MD-1. (Note: VOC test modelling uses an average classroom/office ceiling height of 8.5 ft. Any cleanroom with a greater ceiling height would see significantly lower classifications than otherwise indicated.)

References / Sources

Conneely, E., Fischer, D., Hallmark, N., Yopak, D. "Prop 65 & DINP: Estimating Exposure from Consumer Products." The American Chemistry Council, May 8, 2014.

EN 15804:2011-04: Sustainability of construction works — Environmental Product Declarations — Core rules for the product category of construction products.

ISO 14025. DIN EN ISO 14025:2009-11: Environmental labels and declarations — Type III environmental declarations - Principles and procedures.

The International EPD System. 2012, January. Product Category Rules: Construction Products and CPC 54 Construction Services. Version 1.2.

PE INTERNATIONAL. 2013, November. Life Cycle Assessment of Plastic Building Components.

