

PRODUCT INFORMATION	TYPE OF PRODUCT	Floor covering																		
	COMPANY NAME	Forbo																		
	PRODUCT/COLLECTION NAME	Marmoleum® Dual Tile linoleum																		
	DESCRIPTION	Marmoleum Dual Tile is a homogeneous floor covering made from natural ingredients including linseed oil, rosin binders, wood flour, limestone and dry pigments which are mixed and then calendared onto a polyester backing to ensure optimum dimensional stability. Topshield2™ is a high performance finish. Its double UV cured double layer technology delivers extraordinary performance and clear and vibrant colors that remain over time. Topshield2™ creates a 'ready to use' Marmoleum that requires no initial maintenance or polymer application. The surface can be repaired or refreshed in cases of accidents or after years of intensive use.																		
MATERIAL FEEDSTOCK	MATERIAL CONTENT	For optimal stability, the backing is made from polyester rather than jute and use Forbo's water-based Topshield finish.																		
	RECYCLED CONTENT %	Pre-consumer (post-industrial): 46.5% (wood flour, tall oil) Post-consumer: 0%																		
	RAPIDLY RENEWABLE CONTENT %	23% by weight: linseed oil, pine rosin																		
	HARMFUL ADDITIVES	The material does not contain heavy metal additives. The material does not contain bio accumulative toxins [PBTs] such as PBDEs or other brominated flame-retardants. There are no added urea or phenol or other formaldehydes.																		
	HARMFUL EMISSIONS	The product does not emit greenhouse gasses.																		
	EMISSION STRENGTH OVER TIME TREATMENTS	The product does not give off gas throughout its entire lifecycle NA																		
	MANUFACTURING	MANUFACTURING PROCESS	There are no ozone-depleting chemicals used during the manufacturing process.																	
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LOCATION OF MANUF. PLANT		Manufactured in Sheboygan, WI Regional extraction/process: <table border="0"> <tr> <td>Ingredient</td> <td>extraction location</td> </tr> <tr> <td>Linseed oil (flax)</td> <td>Canada</td> </tr> <tr> <td>Tall oil</td> <td>United States</td> </tr> <tr> <td>Gum rosin</td> <td>Indonesia</td> </tr> <tr> <td>Wood flour</td> <td>Germany</td> </tr> <tr> <td>Limestone</td> <td>Germany</td> </tr> <tr> <td>Pigment</td> <td>Germany</td> </tr> <tr> <td>Jute</td> <td>India, Bangladesh</td> </tr> <tr> <td>Topshield finish (water-based)</td> <td>The Netherlands</td> </tr> </table>	Ingredient	extraction location	Linseed oil (flax)	Canada	Tall oil	United States	Gum rosin	Indonesia	Wood flour	Germany	Limestone	Germany	Pigment	Germany	Jute	India, Bangladesh	Topshield finish (water-based)	The Netherlands
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TESTS/CODES	Meets or exceeds all technical requirements as set forth in ASTM F 2195 Standard Specification for Linoleum Tile Flooring Type I																			
3RD PARTY CERTIFICATION	Platinum certified in accordance with SMaRT® Sustainable Products Standard, led by the Institute for Market Transformation to Sustainability (MTS). 100% USDA Certified Biobased Product. Compliant with CHPS 01350 requirements for VOC emissions and indoors air quality.																			
INSTALLATION	INSTALLATION PROCEDURE	Marmoleum Dual tile edges are cut to fit in a 1/4 turn installation. This will provide the optimal condition for "tight" seams. The benefit of tight seams is that this will best protect the product from excessive topical moisture, which are realities of many of the maintenance procedures performed on the product. Forbo would recommend, where the aesthetic requirement is for installation of the tile in the same direction, that Marmoleum sheet be considered first. If the selection of the tile is made for PSI reasons, give consideration to a 1/4 turn installation when the potential for excessive topical moisture is present.																		
	INSTALLATION ADHESIVES	Use Forbo T 940 adhesive or Forbo Sustain 885m adhesives. Use a 1/16" x 1/16" x 1/16" square notch trowel. Spread Rate: Approximately 125 square feet/gallon.																		
	UNIT COST	Pre- & Post-consumer																		

		Total contribution: \$8,835-\$10,013 Contribution per ft ² : \$0.88-\$1.00
	LIFE CYCLE ANALYSIS EXTRACTION	NA
	END OF SERVICE LIFE	Not specified
MISC. PROPERTIES	QUALITIES/PROPERTIES OF PRODUCT	Slip Resistance: Meets or exceeds A.D.A. recommendation of 0.6 for flat surfaces when tested in accordance with ASTM D 2047, Standard Test Method for Static Coefficient of Friction. Castor Resistance: Suitable for office chairs with castors when tested in accordance with EN 425, Castor Chair Test. Impact Sound Reduction: 6db when tested in accordance with ISO 717-2, Impact Sound Insulation Test. Resistance to Bacteria: Provides a self-sanitizing quality in the form of a bactericidal effect. Independent testing has shown that a sterile zone around the material inhibits the growth of organisms such as staphylococcus aureas and Clostridium difficile.
	MISC. COMMENTS	Anti-Static Properties: Naturally anti-static. This property makes cleaning easier because dirt and dust does not cling to the surface as it may with other materials. Dimensional Stability: Due to the polyester back, providing a strong durable foundation, the product is dimensionally stable in all directions when properly installed. It resists cracking, drying, and peeling. Fire Testing: Class 1 when tested in accordance with ASTM E 648/NFPA 253, Standard Test Method for Critical Radiant Flux. Meets 450 or less when tested in accordance with ASTM E 662/ NFPA 258, Standard Test Method for Smoke Density. Cigarette Resistance: Resists cigarette burns. Burning cigarettes will leave only a brown mark, which can be rubbed out using steel wool or a scouring pad.
	CONTRIBUTION TO LEED POINTS	Materials & Resources Credit 4: Recycled Content (46.5% Pre-Consumer) Credit 6: Rapidly Renewable Materials (23%) Indoor Environmental Quality Credit 4.3: Low-Emitting Materials (Listed on LEM Table) Credit 4.1: Low-Emitting Materials (Adhesive complies with SCAQMD Rule #1168)
COMPANY PROFILE	GREEN PHILOSOPHY	And that's exactly what we do at Forbo Flooring: take good care of the environment. From an ergonomic, economical and ecological point of view, our Marmoleum is the natural choice for floor coverings and furniture surfaces. We provide a clear insight into our environmental performance and into our commitment to continued process improvement. We have always done more in environmental care than we are legally obliged to. Please follow this link to download the corporate environmental report of our production facility in Assendelft, the Netherlands. Life-cycle analyses (LCAs) are applied throughout the world to quantify the potential environmental impacts of a product system over the lifecycle (i.e. from the extraction of the raw materials to the disposal of the product at the end of its useful life). A product's 'eco-balance' is based on an analysis of: its durability and whether its production; - Uses primary energy carriers, such as mineral oil and gas; - Depletes scarce raw materials; - Has fertilization effects; - Leads to acidification; - Damages the ozone layer; - Contributes to global warming; - Produces waste products. The results of an LCA of a number of floor coverings rank Marmoleum first as a nature-friendly floor covering, together with pure, unlacquered wood. In addition, Marmoleum earned an honorable mention for its long lifespan.

MAINTENANCE	CONTACT	Forbo Flooring Systems 8 Maplewood Drive Humboldt Industrial Park Hazleton, PA 18202 Call U.S. Customer Service: 800-842-7839 Canada Customer Service: 866-661-2351 Fax U.S. fax: 570-450-0258 Canada fax: 416-661-2351
	AFTER INSTALLATION	After installation is completed, allow a minimum of 5 days for the adhesive to properly bond and cure before conducting wet cleaning procedures. See Forbo Flooring's Floor Care Guide for additional information.