created via: HPDC Online Builder

HPD UNIQUE IDENTIFIER: 26218

CLASSIFICATION: 09 65 19 Resilient Tile Flooring
PRODUCT DESCRIPTION: Marmoleum Modular is a homogeneous floor covering made from natural ingredients including linseed oil, rosin binders, wood flour, limestone and dry pigments. They are mixed and then calendared onto a polyester backing to ensure optimum dimensional stability. Marmoleum features Topshield2, which is a high performance, double UV cured factory applied finish that makes the product "occupancy ready" after installation. The double UV cured layer technology delivers color clarity and vibrancy, along with extraordinary wear performance by providing a surface that can be repaired after accidents or restored after years of intensive use. The thickness of Marmoleum Modular varies by collection. The standard thickness of MCT is 2.0mm (0.08"), is available in 13.11" x 13.11" (33.3 cm x 33.3 cm) tiles. The standard thickness of Marmoleum Modular is 2.5mm (1/10") and is available in three different tile sizes: 9.8" x 9.8" (25 cm x 25 cm), 9.8" x 19.69" (25 cm x 50 cm), and 19.69" x 19.69" (50 cm x 50 cm). The standard The standard thickness of Marmoleum Modular Striato is 2.5mm (1/10") and is available in 9.8" x 19.69" (25 cm x 50 cm), 9.8" x 39.37" (25 cm x 100 cm), and 19.69" x 19.69" (50 cm x 50 cm) tiles.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format

C Nested Materials Method Basic Method

Threshold Disclosed Per

O Material

Product

Threshold Level

C 100 ppm

⊙ 1,000 ppm C Per GHS SDS

O Other

Other

C Considered C Partially Considered

Not Considered

Residuals/Impurities

Explanation(s) provided for Residuals/Impurities?

Yes ○ No

All Substances Above the Threshold Indicated Are.

Characterized ○ Yes Ex/SC ⊙ Yes ○ No

% weight and role provided for all substances.

Screened

All substances screened using Priority Hazard Lists with results disclosed. Identified ○ Yes Ex/SC ⊙ Yes ○ No

All substances disclosed by Name (Specific or Generic) and Identifier.

CONTENT IN DESCENDING ORDER OF QUANTITY

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

MATERIAL | SUBSTANCE | RESIDUAL OR IMPURITY

GREENSCREEN SCORE | HAZARD TYPE

MARMOLEUM MODULAR [LIMESTONE BM-3dg CELLULOSE PULP (CELLULOSE PULP (SC: WOOD FLOUR)) Nogs LINSEED OIL Nogs TALL OIL LT-P1 | SKI | RES | MUL POLYETHYLENE TEREPHTHALATE (PET) LT-UNK GUM ROSIN LT-P1 | SKI FERRIC OXIDE YELLOW LT-UNK IRON OXIDE BM-1 | CAN FERRIC OXIDE BM-1 | CAN POLYURETHANE FOAMS LT-UNK 2-PROPENOIC ACID, 2-METHYL-, POLYMER WITH ETHYL 2-PROPENOATE AND METHYL 2-METHYL-2-PROPENOATE LT-UNK TITANIUM DIOXIDE LT-1 | CAN | END]

Number of Greenscreen BM-4/BM3 contents ... 0

Contents highest concern GreenScreen

Benchmark or List translator Score ... BM-1

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

Percentage (%) ranges for ingredients are used as a means of keeping the exact formulations proprietary

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

CERTIFICATIONS AND COMPLIANCE See Section 3 for additional listings.

VOC emissions: CDPH Standard Method V1.2 (Section 01350/CHPS) - Classroom & Office scenario LCA: Environmental Product Declaration (EPD) by UL - Industry Generic

CONSISTENCY WITH OTHER PROGRAMS

Pre-checked for LEED v4 Material Ingredients Option 1

Third Party Verified?

O Yes ⊙ No

PREPARER: Self-Prepared VERIFIER: VERIFICATION #:

SCREENING DATE: 2021-10-08 PUBLISHED DATE: 2021-10-08 EXPIRY DATE: 2024-10-08

Section 2: Content in Descending Order of Quantity

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- Basic Inventory method with Product-level threshold.
- Nested Material Inventory method with Product-level threshold
- Nested Material Inventory method with individual Material-level thresholds

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.2, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-2-standard

MARMOLEUM MODULAR

PRODUCT THRESHOLD: 1000 ppm

RESIDUALS AND IMPURITIES CONSIDERED: No

RESIDUALS AND IMPURITIES NOTES: No residuals or impurities are expected to be present in the product at or above the reporting threshold.

OTHER PRODUCT NOTES: N/A

LIMESTONE ID: 1317-65-3					
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		ary HAZARD SCREENI	HAZARD SCREENING DATE: 2021-10-08 15:20:43		
%: 24.7800 - 25.7800	GS: BM-3dg	RC: None	NANO: No	SUBSTANCE ROLE: Filler	
HAZARD TYPE	AGENCY AND LIST TI	TLES	WARNINGS		
None found	one found			No warnings found on HPD Priority Hazard Lists	
SUBSTANCE NOTES:					

CELLULOSE PULP (CELLULOSE PULP (SC: WOOD FLOUR))

ID: 65996-61-4

%: 24.2800 - 25.2800 GS: NoGS		HAZARD SCREEN	HAZARD SCREENING DATE: 2021-10-08 15:20:43			
		RC: PreC	NANO: No	SUBSTANCE ROLE: Filler		
HAZARD TYPE	AGENCY AND LIST TITLES		WARNINGS			
None found				No warnings found on HPD Priority Hazard Lists		

SUBSTANCE NOTES: Category = Tree-based materials – wood planks/strips/pieces, bark, wood chips, and other wood products. This disclosure does not provide information on allergens, hyper-accumulation of metals, production of any toxic substances during normal metabolic activities, pesticides, and other potential hazards or sources of hazards which may be found in certain biological materials. Cellulose is mix of different species of wood. The specific brand name that Forbo Flooring Systems uses in Marmoleum is Lignocel C 120. LIGNOCEL® C 120 is not classified as dangerous according to directive 67/548/EEC, directive 1999/45/EC and regulation 1272/2008 (CLP). Information pertaining to special dangers for human and environment: Adverse physiochemical effects: Capable of causing dust explosions. Adverse human health effects and symptoms: N/A Adverse environmental effects: N/A Other adverse hazards: Substance is combustible. Substance related information: EC-No: N/A INDEX-NO: N/A REACH Registration No: N/A Purity: 100 % Synonyms: N/A Stabilizers: N/A Hazardous Impurities: N/A

LINSEED OIL ID: 8001-26-1					
HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREEN			
%: 23.1000 - 24.1000	GS: NoGS	RC: None	NANO: No	SUBSTANCE ROLE: Binder	
HAZARD TYPE	AGENCY AND LIST TITLES		WARNINGS		
None found				No warnings found on HPD Priority Hazard Lists	
SUBSTANCE NOTES:					

TALL OIL					ID: 8002-26-4	
HAZARD SCREENING METHOD: F	Pharos Chemical and Materials Libra	HAZARD SCREENING	HAZARD SCREENING DATE: 2021-10-08 15:20:44			
%: 7.7600 - 8.7600	GS: LT-P1	RC: PreC	NANO: No	SUBSTANCE ROLE: Binder		
HAZARD TYPE	AGENCY AND LIST TIT	TLES	WARNINGS			
SKI	MAK	MAK AOEC - Asthmagens German FEA - Substances Hazardous to Waters		Sensitizing Substance Sh - Danger of skin sensitization		
RES	AOEC - Asthmagens			Asthmagen (Rs) - sensitizer-induced Class 2 - Hazard to Waters		
MUL	German FEA - Substar					
SUBSTANCE NOTES:						

POLYETHYLENE TEREPHTHALATE (PET) ID: 25038-59-9

%: 7.0000 - 8.0000 GS: LT-UNK RC: None NANO: No SUBSTANCE ROLE: Structure component HAZARD TYPE WARNINGS AGENCY AND LIST TITLES No warnings found on HPD Priority Hazard Lists None found SUBSTANCE NOTES: **GUM ROSIN** ID: 8050-09-7 HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-10-08 15:20:45 %: **4.0400** GS: LT-P1 RC: None NANO: No SUBSTANCE ROLE: Binder HAZARD TYPE AGENCY AND LIST TITLES WARNINGS SKI MAK Sensitizing Substance Sh - Danger of skin sensitization SKI EU - GHS (H-Statements) H317 - May cause an allergic skin reaction [Skin sensitization - Category 1] SUBSTANCE NOTES: FERRIC OXIDE YELLOW ID: 51274-00-1 HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-10-08 15:20:46 %: 0.1000 - 4.0400 GS: LT-UNK RC: None NANO: No SUBSTANCE ROLE: Pigment HAZARD TYPE AGENCY AND LIST TITLES WARNINGS None found No warnings found on HPD Priority Hazard Lists SUBSTANCE NOTES: IRON OXIDE ID: 1317-61-9 HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-10-08 15:20:46 SUBSTANCE ROLE: Pigment %: 0.1000 - 4.0400 GS: BM-1 RC: None NANO: No HAZARD TYPE AGENCY AND LIST TITLES WARNINGS CAN MAK Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification SUBSTANCE NOTES: FERRIC OXIDE ID: 1309-37-1 HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-10-08 15:20:47 %: 0.1000 - 4.0400 RC: None SUBSTANCE ROLE: Pigment GS: BM-1 NANO: No HAZARD TYPE AGENCY AND LIST TITLES WARNINGS CAN MAK Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification SUBSTANCE NOTES: **POLYURETHANE FOAMS** ID: 9009-54-5 HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-10-08 15:20:47 %: 0.1000 - 0.3000 GS: LT-UNK NANO: No SUBSTANCE ROLE: Coating RC: None HAZARD TYPE WARNINGS AGENCY AND LIST TITLES No warnings found on HPD Priority Hazard Lists None found SUBSTANCE NOTES: Finish contains no Isocyanates. 2-PROPENOIC ACID, 2-METHYL-, POLYMER WITH ETHYL 2-ID: 25133-97-5 PROPENOATE AND METHYL 2-METHYL-2-PROPENOATE HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-10-08 15:20:48

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2021-10-08 15:20:45

%: 0.1000 - 0.3000	GS: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Coating
HAZARD TYPE	AGENCY AND LIST TITLES	6	WARNINGS	
None found				No warnings found on HPD Priority Hazard Lists

TITANIUM DIOXIDE ID: 13463-67-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2021-10-08 15:20:48				
%: 0.1000 - 4.0400	GS: LT-1	RC: None	NANO: No	SUBSTANCE ROLE: Pigment		
HAZARD TYPE	AGENCY AND LIST TITLES	CY AND LIST TITLES				
CAN	US CDC - Occupational Card	cinogens	Occupationa	l Carcinogen		
CAN	CA EPA - Prop 65		Carcinogen -	specific to chemical form or exposure route		
CAN	CAN IARC		Group 2B - P sources	Possibly carcinogenic to humans - inhaled from occupational		
CAN	MAK		Carcinogen (establish MA	Group 3A - Evidence of carcinogenic effects but not sufficient to IK/BAT value		
END	TEDX - Potential Endocrine I	TEDX - Potential Endocrine Disruptors		Potential Endocrine Disruptor		
CAN	MAK		Carcinogen (levels	Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT		
CAN	EU - GHS (H-Statements)		H351 - Suspe	ected of causing cancer [Carcinogenicity - Category 2]		

SUBSTANCE NOTES: The titanium dioxide (TiO2) is bound within the product, requiring no further labeling. Identified on the US EPA Safer Chemical Ingredient List. Form-specific hazards: airborne particles of respirable size – occupational setting. Specific guidelines are being created to address known issues related to transparency and disclosure for several materials ("Special Conditions"), including those with Form-Specific Hazards such as Titanium Dioxide. This HPD will be updated as appropriate when these guidelines become available. The Material Health Harmonization Task Group convened by the USGBC states that pigmentary titanium dioxide was "determined to be Benchmark 2 using the full GS (GreenScreen) method" hpdrepository.hpd-collaborative.org HPD v2.1 created via HPDC Builder Page 2 of 12 (http://ow.ly/Z5ken).

SUBSTANCE NOTES: Finish contains no Isocyanates.

Section 3: Certifications and Compliance

This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.

VOC EMISSIONS

CDPH Standard Method V1.2 (Section 01350/CHPS) - Classroom & Office scenario

CERTIFYING PARTY: Third Party APPLICABLE FACILITIES: AII CERTIFICATE URL:

ISSUE DATE: 2014-11-14

EXPIRY DATE:

CERTIFIER OR LAB: Berkeley Analytical

CERTIFICATION AND COMPLIANCE NOTES:

LCA

Environmental Product Declaration (EPD) by UL -**Industry Generic**

CERTIFYING PARTY: Third Party

ISSUE EXPIRY DATE: DATE:

CERTIFIER OR LAB: UL

APPLICABLE FACILITIES: All CERTIFICATE URL: chrome-

2018-2023-01-05 Environment,

extension://oemmndcbldboiebfnladdacbdfmadadm/https://forbo.blob.core.windows.net/forbodocuments/124851/EPD%20Marmoleum%20Modular%202018.01.05.pdf

01-05

Inc.

CERTIFICATION AND COMPLIANCE NOTES:

Section 4: Accessories

This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.

FORBO T 940 ADHESIVE (VOC 0.00 G/L)

HPD URL: No HPD available

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Standard recommended adhesive for installation.

FORBO EZ-ON 100 ADHESIVE (VOC 0.00 G/L)

HPD URL: No HPD Available

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Alternative adhesive that can be used for installation.

FORBO SUSTAIN 1195 ADHESIVE (VOC 0.00 G/L)

HPD URL: No HPD Available

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Alternative adhesive that can be used for installation.

FORBO SUSTAIN 1299 ADHESIVE (VOC 0.00 G/L)

HPD URL: No HPD available

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Alternative adhesive that can be used with installation.

FORBO 660 ADHESIVE (VOC 12.00 G/L)

HPD URL: http://www.forboflooringna.com

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Alternative adhesive that can be used for installation.

FORBO ADHESIVE REMOVER

HPD URL: No HPD available

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Can be used for adhesive residue removal post installation.

NEUTRAL PH CLEANER

HPD URL: No HPD available

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Can be used for routine cleaning.

READY TO USE NEUTRAL PH CLEANER

HPD URL: No HPD available

HPD URL: No HPD available

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Can be used for routine cleaning.

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Can be used for interim maintenance.

FORBO MOP ON RESTORER

HEAVY DUTY CLEANER

HPD URL: No HPD available

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Can be used for interim maintenance.

FORBO SPRAY BUFF HPD URL: No HPD available CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: Can be used for interim maintenance. FORBO MATTE FINISH HPD URL: No HPD available CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: Can be used for interim maintenance. FORBO GLOSS FINISH HPD URL: No HPD available CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: Can be used for interim maintenance.

HPD URL: http://www.forboflooringna.com

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Can be used with Marmoleum Modular installation using the recommended adhesive.



FORBO WALL BASE

Section 5: General Notes

Marmoleum Modular lines include the following: Marmoleum Modular, Modular Striato, MCT (Marmoleum Composition Tile). Marmoleum Modular contains no Isocyanates.

MANUFACTURER INFORMATION

MANUFACTURER: Forbo Flooring Systems ADDRESS: 8 Maplewood Drive Hazle Township PA 18202, United States WEBSITE: www.forboflooringna.com

CONTACT NAME: Shannon Wolski-Konecnik

TITLE: Product Support and Education Services Administrator

PHONE: 5704500319

EMAIL: shannon.wolski@forbo.com

LT-1 List Translator 1 (Likely Benchmark-1)

to a LT-1 or LTP1 score.)

NoGS No GreenScreen.

LT-UNK List Translator Benchmark Unknown (the chemical is present on at least one GreenScreen Specified List, but the

information contained within the list did not result in a clear mapping

The listed contact is responsible for the validity of this HPD and attests that it is accurate and complete to the best of his or her knowledge

KEY

Hazard Types

AQU Aquatic toxicity **CAN** Cancer

DEV Developmental toxicity **END** Endocrine activity EYE Eve irritation/corrosivity **GEN** Gene mutation

NF Not found on Priority Hazard Lists **OZO** Ozone depletion

LAN Land toxicity

NEU Neurotoxicity

MUL Multiple

PBT Persistent, bioaccumulative, and toxic

MAM Mammalian/systemic/organ toxicity

PHY Physical hazard (flammable or reactive)

REP Reproductive

RES Respiratory sensitization

SKI Skin sensitization/irritation/corrosivity

UNK Unknown

GLO Global warming GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)

BM-3 Benchmark 3 (use but still opportunity for improvement)

BM-2 Benchmark 2 (use but search for safer substitutes)

BM-1 Benchmark 1 (avoid - chemical of high concern)

BM-U Benchmark Unspecified (due to insufficient data)

LT-P1 List Translator Possible 1 (Possible Benchmark-1)

Recycled Types

PreC Pre-consumer recycled content PostC Post-consumer recycled content UNK Inclusion of recycled content is unknown

None Does not include recycled content

Other Terms:

GHS SDS Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

Inventory Methods:

Nested Method / Material Threshold Substances listed within each material per threshold indicated per material Nested Method / Product Threshold Substances listed within each material per threshold indicated per product Basic Method / Product Threshold Substances listed individually per threshold indicated per product

Nano Composed of nano scale particles or nanotechnology

Third Party Verified Verification by independent certifier approved by HPDC

Applicable facilities Manufacturing sites to which testing applies

Preparer Third party preparer, if not self-prepared by manufacturer

The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:

- a method for the assessment of exposure or risk associated with product handling or use,
- a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.

Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section

The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.

The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and for compliance with the HPD standard noted.