

HPD UNIQUE IDENTIFIER: 26062

CLASSIFICATION: 09 65 16 Resilient Sheet Flooring

PRODUCT DESCRIPTION: Marmoleum Sheet is a homogeneous floor covering made from natural ingredients including linseed oil, rosin binders, wood flour, limestone, and dry pigments which are mixed and calendared onto a natural jute backing. 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 Sheet varies by collection. The standard thickness is 2.5mm (1/10"). Marmoleum Composition Sheet (MCS) is available in 2.0mm (0.08"). Marmoleum sheet is packaged on a roll that is 79" (2 meters) wide with a maximum length of 105' (32 meters).

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format	Threshold level	Residuals/Impurities	<i>All Substances Above the Threshold Indicated Are:</i>
<input type="radio"/> Nested Materials Method	<input type="radio"/> 100 ppm	<input type="radio"/> Considered	Characterized <input type="radio"/> Yes Ex/SC <input checked="" type="radio"/> Yes <input type="radio"/> No
<input checked="" type="radio"/> Basic Method	<input checked="" type="radio"/> 1,000 ppm	<input type="radio"/> Partially Considered	<i>% weight and role provided for all substances.</i>
Threshold Disclosed Per	<input type="radio"/> Per GHS SDS	<input checked="" type="radio"/> Not Considered	Screened <input type="radio"/> Yes Ex/SC <input checked="" type="radio"/> Yes <input type="radio"/> No
<input type="radio"/> Material	<input type="radio"/> Other	Explanation(s) provided for Residuals/Impurities?	<i>All substances screened using Priority Hazard Lists with results disclosed.</i>
<input checked="" type="radio"/> Product		<input checked="" type="radio"/> Yes <input type="radio"/> No	Identified <input type="radio"/> Yes Ex/SC <input checked="" type="radio"/> Yes <input type="radio"/> No
			<i>All substances disclosed by Name (Specific or Generic) and Identifier.</i>

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 SHEET [CELLULOSE PULP (CELLULOSE PULP (SC: WOOD FLOUR)) NoGS LINSEED OIL NoGS LIMESTONE; CALCIUM CARBONATE LT-UNK TALL OIL LT-P1 | SKI | RES | MUL CELLULOSE, MICROCRYSTALLINE (CELLULOSE, MICROCRYSTALLINE (SC: JUTE)) NoGS GUM ROSIN LT-P1 | SKI POLYURETHANE FOAMS LT-UNK IRON OXIDE LT-UNK | CAN FERRIC OXIDE YELLOW LT-UNK FERRIC OXIDE BM-2 | CAN TITANIUM DIOXIDE LT-1 | CAN | END 2-PROPENOIC ACID, 2-METHYL-, POLYMER WITH ETHYL 2-PROPENOATE AND METHYL 2-METHYL-2-PROPENOATE LT-UNK]

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

Contents highest concern GreenScreen Benchmark or List translator Score ... LT-1
Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

(%) 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 V1.1 (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?

- Yes
- No

PREPARER: Self-Prepared

VERIFIER:
VERIFICATION #:

SCREENING DATE: 2019-01-09

PUBLISHED DATE: 2021-09-12

EXPIRY DATE: 2022-01-09

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.hpdc-collaborative.org/hpd-2-2-standard

MARMOLEUM SHEET

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

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

ID: 65996-61-4

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2019-01-10 5:06:35

#: 22.0000 - 35.0000 GS: NoGS 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 SCREENING DATE: 2019-01-10 5:06:35

#: 19.0000 - 26.0000 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:

LIMESTONE; CALCIUM CARBONATE

ID: 1317-65-3

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library HAZARD SCREENING DATE: 2019-01-10 5:06:35

#: 15.0000 - 20.0000 GS: LT-UNK RC: None NANO: No SUBSTANCE ROLE: Filler

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: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-01-10 5:06:35**%: **9.0000 - 13.0000** GS: **LT-P1** RC: **PreC** NANO: **No** SUBSTANCE ROLE: **Binder**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
SKI	MAK	Sensitizing Substance Sh - Danger of skin sensitization
RES	AOEC - Asthmagens	Asthmagen (Rs) - sensitizer-induced
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters

SUBSTANCE NOTES:

CELLULOSE, MICROCRYSTALLINE (CELLULOSE, MICROCRYSTALLINE (SC: JUTE))

ID: 9004-34-6

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-01-10 5:06:35**%: **9.0000 - 10.0000** GS: **NoGS** RC: **None** NANO: **No** SUBSTANCE ROLE: **Structure component**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Category = Plant-based materials – plant based fibers such as cotton, hemp, ramie, rice husks, and coconut fiber 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

GUM ROSIN

ID: 8050-09-7

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-01-10 5:06:35**%: **1.5000 - 2.5000** 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

SUBSTANCE NOTES:

POLYURETHANE FOAMS

ID: 9009-54-5

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2019-01-10 5:06:35**%: **0.1000 - 0.3000** GS: **LT-UNK** RC: **None** NANO: **No** SUBSTANCE ROLE: **Coating**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

SUBSTANCE NOTES: Finish contains no Isocyanates.

IRON OXIDE

ID: 1317-61-9

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library	HAZARD SCREENING DATE: 2019-01-10 5:06:35
%: 0.1000 - 4.0000	GS: LT-UNK RC: None NANO: No SUBSTANCE ROLE: Pigment

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 YELLOW

ID: 51274-00-1

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library	HAZARD SCREENING DATE: 2019-01-10 5:06:35
%: 0.1000 - 4.0000	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:

FERRIC OXIDE

ID: 1309-37-1

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library	HAZARD SCREENING DATE: 2019-01-10 5:06:35
%: 0.1000 - 4.0000	GS: BM-2 RC: None NANO: No SUBSTANCE ROLE: Pigment

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	MAK	Carcinogen Group 3B - Evidence of carcinogenic effects but not sufficient for classification

SUBSTANCE NOTES:

TITANIUM DIOXIDE

ID: 13463-67-7

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library	HAZARD SCREENING DATE: 2019-01-10 5:06:35
%: 0.1000 - 4.0000	GS: LT-1 RC: None NANO: No SUBSTANCE ROLE: Pigment

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
CAN	US CDC - Occupational Carcinogens	Occupational Carcinogen
CAN	CA EPA - Prop 65	Carcinogen - specific to chemical form or exposure route
CAN	IARC	Group 2B - Possibly carcinogenic to humans - inhaled from occupational sources
CAN	MAK	Carcinogen Group 3A - Evidence of carcinogenic effects but not sufficient to establish MAK/BAT value
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
CAN	MAK	Carcinogen Group 4 - Non-genotoxic carcinogen with low risk under MAK/BAT levels

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" hpcrepository.hpd-collaborative.org HPD v2.1 created via HPDC Builder Page 2 of 12 (<http://ow.ly/Z5ken>).

2-PROPENOIC ACID, 2-METHYL-, POLYMER WITH ETHYL 2-PROPENOATE AND METHYL 2-METHYL-2-PROPENOATE

ID: 25133-97-5

HAZARD SCREENING METHOD: Pharos Chemical and Materials Library		HAZARD SCREENING DATE: 2019-01-10 5:06:35		
#: 0.1000 - 0.3000	GS: LT-UNK	RC: None	NANO: No	SUBSTANCE ROLE: Coating
HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS		
None found		No warnings found on HPD Priority Hazard Lists		

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 V1.1 (Section 01350/CHPS) - Classroom & Office scenario		
CERTIFYING PARTY: Third Party APPLICABLE FACILITIES: All CERTIFICATE URL:	ISSUE DATE: 2017-07-05	EXPIRY DATE:	CERTIFIER OR LAB: Berkeley Analytical
CERTIFICATION AND COMPLIANCE NOTES:			
LCA	Environmental Product Declaration (EPD) by UL - Industry Generic		
CERTIFYING PARTY: Third Party APPLICABLE FACILITIES: The Green Standard CERTIFICATE URL: https://www.forbo.com/flooring/en-us/environment/pmwz1i	ISSUE DATE: 2018-01-05	EXPIRY DATE: 2023-01-05	CERTIFIER OR LAB: UL Environment
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 L 885 ADHESIVE (VOC 0.00 G/L)	HPD URL: No HPD available
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: Standard recommended adhesive used for installation.	
FORBO SUSTAIN 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 with 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: No HPD available
CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES: Alternative adhesive that can be used with 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 CLEANERHPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Can be used for routine cleaning.

READY TO USE NEUTRAL PH CLEANERHPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Can be used for routine cleaning.

HEAVY DUTY CLEANERHPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Can be used for interim maintenance.

FORBO MOP ON RESTORERHPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Can be used for interim maintenance.

FORBO SPRAY BUFFHPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Can be used for interim maintenance.

FORBO MATTE FINISHHPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Can be used for interim maintenance.

FORBO GLOSS FINISHHPD URL: **No HPD available**

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

Can be used for interim maintenance.

FORBO WALL BASEHPD URL: <http://www.forboflooringna.com>

CONDITION WHEN RECOMMENDED OR REQUIRED AND/OR OTHER NOTES:

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

 **Section 5: General Notes**

Products lines that fall under the category of Marmoleum Sheet are the following:

Real, Fresco, Cocoa, Concrete, Slate, Vivace, Piano, Splash, Terra, Marbled, Cirrus, and Marmoleum Composition Sheet (MCS).

Marmoleum Sheet 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: 570-450-0319
EMAIL: shannon.wolski@forbo.com

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	LAN Land toxicity	PHY Physical hazard (flammable or reactive)
CAN Cancer	MAM Mammalian/systemic/organ toxicity	REP Reproductive
DEV Developmental toxicity	MUL Multiple	RES Respiratory sensitization
END Endocrine activity	NEU Neurotoxicity	SKI Skin sensitization/irritation/corrosivity
EYE Eye irritation/corrosivity	NF Not found on Priority Hazard Lists	UNK Unknown
GEN Gene mutation	OZO Ozone depletion	
GLO Global warming	PBT Persistent, bioaccumulative, and toxic	

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)	LT-1 List Translator 1 (Likely Benchmark-1)
BM-3 Benchmark 3 (use but still opportunity for improvement)	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 to a LT-1 or LTP1 score.)
BM-2 Benchmark 2 (use but search for safer substitutes)	NoGS No GreenScreen.
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
Preparer Third party preparer, if not self-prepared by manufacturer
Applicable facilities Manufacturing sites to which testing applies

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.