# **ENVIRONMENTAL** TRANSPARENCY PASSPORT



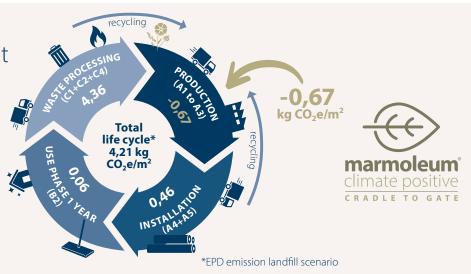
Marmoleum 2.0, 2.5, 3.2 mm sheet | 1/July/2025 | EPD reference 47908599342.101.2

Forbo's 'Going Round, Moving Forward' philosophy underscores our commitment to circular economy principles, emphasizing the importance of entire product lifecycle sustainable practices. Since 2019 we have reduced scope 1 and 2 Green House Gas emissions by 36%. Since 2023 Forbo sales organisations in 13 countries have been participating in our Back-to-the-floor (BTTF) program. Forbo provides Transparency, with focus on Circularity and Renewability. Since 2012 our Sustainability Report is done according to the Global Reporting Initiative (GRI) standards. Aligned with multiple United Nations Sustainable Development Goals (SDGs).

Life cycle environmental impact

Marmoleum 2.5 mm





## HEALTHY, NATURAL MATERIALS

- Marmoleum is made from up to 98% natural raw materials
- · Marmoleum is made from up to 78% bio-based materials (EN17861:2023)
- free of PVC, PET, synthetic rubber and plasticizers
- · REACH compliant
- · Excellent indoor air quality: low TVOC's  $\leq 0.01 \text{ mg/m}^3$
- · Compliant to C2C RSL (V4)

### **CLEAN AIR AND CLIMATE PROTECTION**

- Every m<sup>2</sup> Marmoleum is climate positive, cradle to gate, without offsetting
- · 100% renewable electricity
- Solar panels on-site
- Continuous improvement energy reduction and transition projects

# marmoleum

#### CIRCULAR PRODUCT

#### Reduce: Design out waste and pollution

- Our Back-to-the-floor program offers a proven post-consumer recycling process
- Circular industry partnerships Re-use & recycle: Keep materials
- · Topshield pro, extended warranty
- Contain up to 38% recycled content
- · 191 tonnes Marmoleum collected via BTTF in 2024

#### Renew: Regenerate natural systems

• Over half of the ingredients are derived from renewable sources



## SOCIAL FAIRNESS, WATER & SOIL STEWARDSHIP

- Marmoleum is manufactured at an SA8000® - certified organisation, proving development, maintenance and application of socially acceptable practices.
- **Producing Marmoleum does** not require water
- Daily cleaning Marmoleum does not require water
- · PEFC certified wood flour
- Dué diligence policy on child labour and conflict materials



### GLOBAL THIRD PARTY CERTIFIED PRODUCT















































Clea Man

Healthy natural materials	Third party verified
Product description DoP	Marmoleum 2.0, 2.5, 3.2 mm sheet link to tech. spec sheet
All material content assures a positive impact on material quality and future circularity	Free of PVC, Free of PET, synthetic rubber, and plasticisers. REACH compliant
LOW TVOC    MODOR ARE EMISSIONS   A+   A+   A+	Indoor air Gold, Eurofins AgBB compliant French Act A+ CDPH 01350 M1 certified Belgian VOC compliant
Health Product Declaration	Link

Marmoleum has natural bacteriostatic properties which are confirmed by independent laboratories, even against MRSA bacteria.

Compo	sition	Marmoleum 2.0, 2			.5, 3.2 mm sheet		
					Amount %		
Component		CAS number			Non- Renewable	weighted average	
Rinder	Linseed oil	8001-26-1	Bio-based crop			25	Europe
binder	Gum rosin	8050-09-7	Bio-based crop			5	Indonesia
	Wood flour	-	Bio-based	Bio-based waste product from wood processing		23	Germany
Filler	Calcium carbonate	1317-65-3			Abundant mineral	21	Germany
	Recycled Marmoleum	-	Partially bio-based	Pre- and post- consumer waste		14	Internal/External
Pigment	Titanium dioxide	13463-67-7			Limited mineral	2	Global
rigilient	Other pigments	-			Limited mineral	1	Global
Backing	Jute	-	Bio-based crop			8	India/Bangladesh
Finish	Lacquer	-				1	Netherlands
Marmoleum Cocoa top layer	Cocoa husks	-	Bio-based	Bio-based waste product from cocoa Industry		3	Netherlands

Clean air and Climate protection			
Manufacturing site	Forbo Flooring BV Assendelft	Clean energy use	100% renewable electricity
Scope 1&2 Fossil emissions in 2024 *a Scope 1&2 Biogenic emissions in 2024	$10'276$ metric tons $CO_2$ $1'772$ metric tons $CO_2$	Achievements	Sustainability report 2024 Sustainability policy

Product Carbon Footprint	Third pa	rty verified
Environmental Product Declaration	Link to o	nline EPD
Cradle to gate (A1 to A3)*b		kg CO <sub>2</sub> equiv./m <sup>2</sup>
(Embodied carbon)	2.0 mm	-0,25
	2.5 mm	-0,67
	3.2 mm	-1,68
Cradle to grave (1Y)	2.0 mm	2,90
Landfill (A1 to C4)* <sup>c</sup>	2.5 mm	4,21
	3.2 mm	6,56
Cradle to grave (1Y)	2.0 mm	2,85
incineration (A1 to C3)* <sup>c</sup>	2.5 mm	4,15
	3.2 mm	6,70

Biogenic carbon content *d		kg CO <sub>2</sub> equiv./m <sup>2</sup>
	2.0 mm	2,28
	2.5 mm	4,13
	3.2 mm	5,73
Potential emission prevention by post-use recycling instead of incineration (-C3+A4-C2, neglecting partial A1 and A2 reduction)	2.0 mm	2,85
	2.5 mm	4,15
	3.2mm	6,70

- $^{*\rm a}$  Total  ${\rm CO_2}$  emissions from manufacturing site operations and purchased energy
- $^{*b}$  CO  $_2$  emissions associated with raw material extraction, transport, and manufacturing of a product
- \*CO2 emissions associated with the full lifecycle of a product
- $^{*\rm d}$  1kg biogenic carbon (C) equals 44/12 kg  $\rm CO_2$

Meets M12 soft floor covering criteria (Ska Offices Vs 1.2) (Ska Retail Vs 1.0)(Ska Higher Education Vs 1.0)

Circular product	cular product				
	2.0 mm	2.5 mm	3.2 mm		
Product weight	2.3 kg/m <sup>2</sup>	2.9 kg/m <sup>2</sup>	3.9 kg/m <sup>2</sup>		
Total recycled content	36%	36% (cocoa 38%)	34%		
Pre-consumer non-flooring	g recycled conte	nt	21-33%		
Flooring recycled content			up to 15%		
Renewable content			59-78%		
Bio-based content			70-78%		

Fixation type	Glued down For bio-based installation Eurocol 616 Eurostar Green bio-based linoleum adhesive (RED Cert²) can be used		
% residues of installation	Sheet = 6%		
Product service life	25 years <sup>+</sup>		
Repairability	yes		
Recyclability of cut-offs, post-use Customer/project circularity certification available. Packaging from recycled source and/or recyclable	Back-to-the-floor program  BACK TO THE FLOOR RECYCLING PROGRAM		

Site management systems certified on environmental & quality management, and occupational health and safety. To support social equity and fair treatment of workers in our supply chain we adopted the Social Accountability standard SA 8000. We have a child labor and conflict minerals due diligence policy. Our Marmoleum manufacturing process is with zero-water usage.

ISO9001, ISO14001, ISO45001 SA8000

## Contribution to sustainable building schemes

**BREEAM** Marmoleum flooring contributes to the environmental and well-being scores in building rating schemes, on many criteria and therewith meets the building requirements today and in the **LEED** future. From bio-based and recycled raw material usage, to low VOC's and acoustic performance **DNGB** to the availability of a post-consumer recycling program, HPD and EPD and GRI sustainability WELL reporting. We provide full transparency and required information for your environmental and healthy building scope. Australian Green building council

Ska scheme (RICS)