Environmental Product Declaration according to ISO 14025 and EN 15804



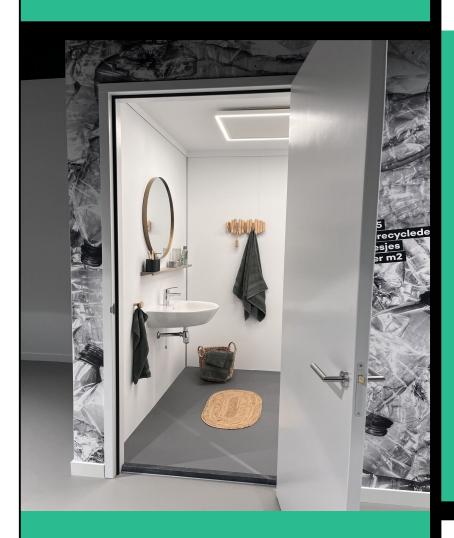
This declaration is for:

REPEAT Materials® Flex Panel

Provided by:

Eauzon BVBA, REPEAT Materials®

RBPEAT®



program operator
Stichting MRPI®
publisher
Stichting MRPI®
www.mrpi.nl

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1.1.00357.2022
date of first issue
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COMPANY INFORMATION

 $R \exists P E \overline{\forall} T$

Eauzon BVBA, REPEAT Materials® Ijslandstraat 8 / 00.02 8400 Oostende 0032 487 62 41 15 info@repeatmaterials.com https://www.repeatmaterials.com



PRODUCT

REPEAT Materials® Flex Panel



DECLARED UNIT/FUNCTIONAL UNIT

1 m² REPEAT Materials® Flex Panel (3 mm thick and area weight of 3,90 kg/m²), with a reference service life of 75 years.



DESCRIPTION OF PRODUCT

REPEAT Materials® panels are recycled PET structural building panels. REPEAT Materials® panels comprise individual solid and foam layers of rPET to offer specialized panels for every application. The panels are available in wide color and décor ranges.





MRPI® REGISTRATION

1.1.00357.2022

DATE OF ISSUE 24-11-2022

EXPIRY DATE

24-11-2027







MORE INFORMATION

https://www.repeatmaterials.com/products

SCOPE OF DECLARATION

This MRPI®-EPD certificate is verified by Ulbert Hofstra, SGS INTRON B.V..

The LCA study has been done by Lonneke de Nooijer, LN Innovations.

The certificate is based on an LCA-dossier according to ISO14025 and EN15804+A2. It is verified according to the 'MRPI®-EPD verification protocol November 2020.v4.0'. EPDs of construction products may not be comparable if they do not comply with EN15804+A2. Declaration of SVHC that are listed on the 'Candidate List of Substances of Very High Concern for authorisation' when content exceeds the limits for registration with ECHA.



PROGRAM OPERATOR

Stichting MRPI® Kingsfordweg 151 1043GR Amsterdam



ir. J-P den Hollander, Managing director MRPI®

DEMONSTRATION OF VERIFICATION

CEN standard EN15804 serves as the core PCR[a]

Independent verification of the declaration and data,

according to EN ISO 14025:2010:

internal:

external: X

Third party verifier:

Ulbert Hofstra, SGS INTRON B.V.

[a] PCR = Product Category Rules





DETAILED PRODUCT DESCRIPTION

REPEAT Materials® panels are recycled PET structural building panels. REPEAT Materials® panels comprise individual solid and foam layers of rPET, to offer specialized panels for every application.

The Flex Panels are for applications indoor where stiffness is a drawback, the panels are easily to bend and to curve. Strategically removing a layer creates a much lighter, more flexible and low cost version of the REPEAT Materials® panels.

The simplest version of the Flex Panels is the Flex 3. This consists of a 3 mm, solid PET layer, finished with a decorative film (0,3mm). In case more thickness is needed, this solid layer can be complemented with an additional layer of PET foam.

The reference service life for the REPEAT® Materials Rigid Panel is set at 75 years, provided that it is subject to appropriate installation, use and maintenance under normal conditions for indoor applications. It is practically only restricted by the service life of the equipment or whole building, which can extent that time period. The performance is only compromised by extraordinary impacts and damage during construction. The RSL should be interpreted with caution considering uncertainty limitations due to the different practice scenarios.

A detailed product description and the basic composition of the Flex REPEAT Materials® panel are presented in the tables below.

Technical specifications	Dimension
Decorative Film	0,3 mm
Solid PET Face	3 mm
PET Foam Core	Optional, not included in this
FET FOATH COTE	EPD

COMPONENT >1% of total mass	[kg / %]
Recycled PET waste	75%
Virgin PET	25%
Organic and inorganic additives	<1 %

SCOPE AND TYPE

The product that is reported in this document is a specific REPEAT® Materials panel based on the FLex (3 mm), with no additional foam core. The Flex panel has a total 3 mm thickness and an area weight of 3,9 kg/m². The EPD is of the type "cradle-to-grave", including the modules A to D. This report complies with the requirements of ISO 14040, 14044, EN 15804 and ISO 14025 for EPD and the 'Bepalingsmethode Milieuprestatie Bouwwerken' and PCR 2019:14 Construction products (EN 15804:A2) Version 1.1. The objective of this study is to publish third-party verified data about the environmental performance of REPEAT Materials® panels in an ECO-platform EPD.

Upstream data, raw materials production, transportation, and electricity mix data have been obtained from Ecoinvent v3.6 as secondary data. All manufacturing data in core processes have been gathered from the manufacturing plants, based on 2021/2022 production (December 1, 2021-May 31, 2022). As REPEAT Materials® has not yet been running for a full year, this LCA covers the



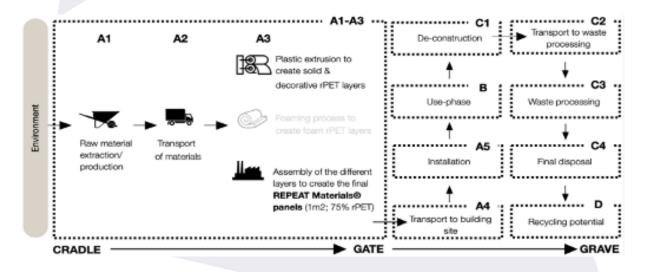


months in which REPEAT Materials® has been operating so far. The LCA calculations were made using the openLCA software1.10.3. Life cycle inventory data is included for at least 95% of the total inflow to the life cycle stages and a 5% cut-off rule with regard to energy, mass and environmental relevance has been applied. The system model used is 'Cutoff'.

PRODUCT STAGE CONSTRUCTION PROCESS								SE ST	TAGE			E	ND OI STA		Ξ	BENEFITS AND LOADS BEYOND THE
			ST.	AGE											SYSTEM BOUNDARIES	
Raw material supply	Transport	Manufacturing	Transport gate to site	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse- Recovery- Recycling- potential
A1	A2	A3	A4	A5	B1	B2	В3	B4	B 5	B6	B7	C1	C2	C3	C4	D
Х	Х	Х	Х	Х	Х	Х	Х	Х	Х	ND	ND	Х	Х	Х	Х	Х

X = Modules Assessed

ND = Not Declared



LCA process diagram according to EN 15804 (7.2.1)







REPRESENTATIVENESS

This EPD is representative for the Dutch market. REPEAT Materials® products are sold worldwide and 100% of the PET waste is recycled in Europe to create REPEAT Materials® panels. REPEAT® Materials designs and develops its panels in Oostende, Belgium. All production sites and suppliers are located in Belgium and its neighbouring countries.

ENVIRONMENTAL IMPACT per functional unit or declared unit (core indicators A2)

	UNIT	A1	A2	А3	A1-A3	A4	A5	B1	B2	В3	B4	B5	C1	C2	С3	C4	D
GWP-total	kg CO2 eq.	8.60	4.43	2.40	1.14	9.00	8.41	0.00	1.52	0.00	0.00	0.00	0.00	6.65	1.44	2.25	-3.20
GWF-total	kg CO2 eq.	E+0	E-1	E+0	E+1	E-2	E-1	0.00	E-1	0.00	0.00	0.00	0.00	E-2	E+0	E-2	E+0
GWP-fossil	kg CO2 eq.	8.02	4.43	2.76	1.12	9.01	4.78	0.00	1.50	0.00	0.00	0.00	0.00	6.65	1.08	2.25	-3.20
OWI 1033II	kg 002 cq.	E+0	E-1	E+0	E+1	E-2	E-1	0.00	E-1	0.00	0.00	0.00	0.00	E-2	E+0	E-2	E+0
GWP-biogenic	kg CO2 eq.	5.86	3.60	-3.68	2.18	4.45	3.63	0.00	2.84	0.00	0.00	0.00	0.00	1.99	3.51	2.41	1.34
GVVI -biogeriic	kg OO2 eq.	E-1	E-4	E-1	E-1	E-5	E-1	0.00	E-3	0.00	0.00	0.00	0.00	E-5	E-1	E-5	E-3
GWP-luluc	kg CO2 eq.	6.79	1.40	1.04	1.48	9.08	5.50	0.00	7.94	0.00	0.00	0.00	0.00	1.14	1.14	1.44	-8.22
GWI -Idide	kg 002 eq.	E-6	E-4	E-6	E-4	E-8	E-8	0.00	E-6	0.00	0.00	0.00	0.00	E-7	E-7	E-10	E-7
ODP	kg CFC11 eq.	5.96	9.43	1.46	8.37	2.16	1.88	0.00	1.35	0.00	0.00	0.00	0.00	1.53	1.21	7.81	-1.62
ODI	kg or orreq.	E-7	E-8	E-7	E-7	E-8	E-8	0.00	E-8	0.00	0.00	0.00	0.00	E-8	E-7	E+0	E-7
ΔD	mol H+ eq.	3.83	7.66	1.44	6.04	3.80	1.23	0.00	1.04	0.00	0.00	0.00	0.00	2.70	4.66	2.14	-1.45
AP	morri eq.	E-2	E-3	E-2	E-2	E-4	E-3	0.00	E-3	0.00	0.00	0.00	0.00	E-4	E-3	E-5	E-2
EP-freshwater	kg PO4 eq.	3.01	5.02	1.42	4.48	7.08	9.01	0.00	1.10	0.00	0.00	0.00	0.00	5.33	2.40	4.60	-8.90
Li -liesiiwatei	kg i O+ eq.	E-3	E-5	E-3	E-3	E-6	E-5	0.00	E-4	0.00	0.00	0.00	0.00	E-6	E-4	E-7	E-4
EP-marine	kg N eq.	7.45	1.58	2.72	1.18	1.10	3.10	0.00	1.70	0.00	0.00	0.00	0.00	7.96	1.53	4.90	-2.45
Li mamic	ng 14 cq.	E-3	E-3	E-3	E-2	E-4	E-4	0.00	E-4	0.00	0.00	0.00	0.00	E-5	E-3	E-4	E-3
EP-terrestrial	mol N eg.	8.18	1.76	3.06	1.30	1.24	2.86	0.00	2.28	0.00	0.00	0.00	0.00	8.80	1.40	7.60	-2.76
Li -terrestriai	morn eq.	E-2	E-2	E-2	E-1	E-3	E-3	0.00	E-3	0.00	0.00	0.00	0.00	E-4	E-2	E-5	E-2
POCP	kg NMVOC eq.	2.29	4.78	7.09	3.48	3.90	8.00	0.00	5.10	0.00	0.00	0.00	0.00	2.70	4.40	2.64	-9.22
1 001	ng raw oo eq.	E-2	E-3	E-3	E-2	E-4	E-4	0.00	E-4	0.00	0.00	0.00	0.00	E-4	E-3	E-5	E-3
ADP-mineral	kg Sb eq.	2.57	3.75	3.33	7.08	1.67	7.74	0.00	4.45	0.00	0.00	0.00	0.00	1.97	3.58	3.10	-1.23
s & metals	kg ob eq.	E-5	E+0	E+0	E+0	E-7	E-7	0.00	E-7	0.00	0.00	0.00	0.00	E-7	E-6	E-9	E+0
ADP-fossil	MJ, net	1.64	6.60	3.77	2.09	1.43	4.99	0.00	2.64	0.00	0.00	0.00	0.00	1.01	1.58	6.01	-7.35
7151 103311	calorific value	E+2	E+0	E+1	E+2	E+0	E+0	0.00	0.00 E+0 0.0		0.00	0.00	0.00	E+0	E+1	E-2	E+1
WDP	m3 world eq.	4.91	4.77	3.92	5.31	1.18	2.21	0.00	1.69	0.00	0.00	0.00	0.00	7.60	2.93	1.85	-1.60
WDI	deprived	E+1	E-2	E+0	E+1	E-2	E-1	0.00	E+1	0.00	0.00	0.00	0.00	E-3	E-1	E-1	E+0

GWP-total = Global Warming Potential total

GWP-fossil = Global Warming Potential fossil fuels

GWP-biogenic = Global Warming Potential biogenic

GWP-luluc = Global Warming Potential land use and land use change

ODP = Depletion potential of the stratospheric ozone layer

AP = Acidification Potential, Accumulated Exceedence

EP-freshwater = Eutrophication Potential, fraction of nutrients reaching freshwater end compartment

EP-marine = Eutrophication Potential, fraction of nutrients reaching marine end compartment

EP-terrestrial = Eutrophication Potential, Accumulated Exceedence

POCP = Formation potential of tropospheric ozone photochemical oxidants

ADP-minerals&metals = Abiotic Depletion Potential for non fossil resources [2]

ADP-fossil = Abiotic Depletion for fossil resources potential [2]

WDP = Water (user) deprivation potential, deprivation-weighted water consumption [2]

Disclaimer [2]

- The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.





ENVIRONMENTAL IMPACT per functional unit or declared unit (additional indicators A2)

	UNIT	A1	A2	А3	A1-A3	A4	A5	B1	B2	В3	B4	B5	C1	C2	СЗ	C4	D
PM	Disease	3.39	2.36	1.20	4.83	8.14	1.06	0.00	8.28	0.00	0.00	0.00	0.00	4.67	7.27	3.90	-1.31
FIVI	incidence	E-7	E-8	E-7	E-7	E-9	E-8	0.00	E-9	0.00	0.00	0.00	0.00	E-9	E-8	E-10	E-7
IRP	kBq U235 eq.	1.09	3.76	4.38	1.56	7.07	3.76	0.00	5.07	0.00	0.00	0.00	0.00	4.93	7.96	3.00	-2.16
IIXF	кву 0235 ец.	E+0	E-2	E-1	E+0	E-3	E-2	0.00	E-2	0.00	0.00	0.00	0.00	E-3	E-2	E-4	E-1
ETP-fw	CTUe	1.58	4.37	4.38	2.06	9.51	4.72	0.00	2.60	0.00	0.00	0.00	0.00	6.96	3.46	8.81	-3.72
EIF-IW		E+2	E+0	E+1	E+2	E-1	E+0	0.00	E+0	0.00	0.00	0.00	0.00	E-1	E+1	E-2	E+1
HTP-c	CTUh	5.61	1.36	1.19	6.94	2.59	1.64	0.00	3.83	0.00	0.00	0.00	0.00	2.11	1.53	1.49	-1.48
HIF-C	Cron	E-9	E-10	E-9	E-9	E-11	E-10	0.00	E-10	0.00	0.00	0.00	0.00	E-11	E-9	E-12	E+0
HTP-nc	CTUb	8.28	4.28	2.45	1.12	1.23	3.78	0.00	8.30	0.00	0.00	0.00	0.00	8.28	2.07	3.49	-2.70
HIP-IIC	CTUh	E-8	E-9	E-8	E-7	E-9	E-9	0.00	E-9	0.00	0.00	0.00	0.00	E-10	E-8	E-11	E+0
SQP		9.63	3.26	9.56	1.38	1.40	3.37	0.00	1.17	0.00	0.00	0.00	0.00	5.92	6.64	6.60	-1.81
		E+0	E+0	E-1	E+1	E+0	E-1		E-1			0.00	0.00	E-1	E+0	E-2	E+0

PM = Potential incidence of disease due to PM emissions

IRP = Potential Human exposure efficiency relative to U235 [1]

ETP-fw = Potential Comparative Toxic Unit for ecosystems [2]

HTP-c = Potential Comparative Toxic Unit for humans [2]

HTP-nc = Potential Comparative Toxic Unit for humans, non-cancer [2]

SQP = Potential soil quality index [2]

Disclaimer [1]

- This impact category deals mainly with the eventual impact of low dose ionizing radiation on human health of the nuclear fuel cycle. It does not consider effects due to possible nuclear accidents, occupational exposure nor due to radioactive waste disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

Disclaimer [2]

- The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.





RESOURCE USE per functional unit or declared unit (A1 / A2)

	UNIT	A1	A2	А3	A1-A3	A4	A5	B1	B2	В3	B4	B5	C1	C2	С3	C4	D
PERE	MJ	5.93	9.59	2.96	8.99	1.12	1.78	1.00	2.32	0.00	0.00	0.00	0.00	7.30	4.32	8.70	-1.36
FERE	IVIJ	E+0	E-2	E+0	E+0	E-2	E-1	E+0	E-1	0.00	0.00	0.00	0.00	E-3	E-1	E-4	E+0
PERM	MJ	7.06	2.22	5.70	1.28	3.97	7.79	-1.00	7.79	0.00	0.00	0.00	0.00	3.38	2.81	2.30	-1.19
I LIXIVI	1010	E+0	E-2	E+0	E+1	E-4	E-2	E+0	E-2	0.00	0.00	0.00	0.00	E-3	E-1	E-4	E+0
PERT	MJ	1.30	1.18	8.66	2.18	1.15	2.55	0.00	3.10	0.00	0.00	0.00	0.00	1.07	7.13	1.10	-2.55
I LIXI	1010	E+1	E-1	E+0	E+1	E-2	E-1	0.00	E-1	0.00	0.00	0.00	0.00	E-2	E-1	E-3	E+0
PENRE	MJ	2.02	2.20	7.18	2.76	2.38	6.03	0.00	8.72	0.00	0.00	0.00	0.00	1.59	1.46	1.87	-4.56
I LIVING	IVIO	E+1	E-1	E+0	E+1	E-2	E-1	0.00	E-1	0.00	0.00	0.00	0.00	E-2	E+0	E-3	E+0
PENRM	MJ	1.44	6.37	3.03	1.80	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.43	1.40	-6.88
LIVIN	1010	E+2	E+0	E+1	E+2	E+0	E+0	E+0	E+0	E+0	E+0	E+0	E+0	E+0	E+1	E+0	E+1
PENRT	MJ	1.64	6.59	3.75	2.08	1.43	2.01	1.40	2.28	1.40	1.40	1.40	1.40	1.42	1.57	1.40	-7.34
LIVICI	1410	E+2	E+0	E+1	E+2	E+0	E+0	E+0	E+0	E+0	E+0	E+0	E+0	E+0	E+1	E+0	E+1
SM	kg	2.74 E+0	0.00	0.00	2.74 E+0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
RSF	MJ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NRSF	MJ	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
FW	m3	5.12 E-1	2.12 E-3	3.93 E-1	9.07 E-1	1.12 E-3	1.54 E-2	0.00	4.72 E-1	0.00	0.00	0.00	0.00	7.25 E-4	3.10 E-2	1.14 E-4	-1.61 E-1

PERE = Use of renewable energy excluding renewable primary energy resources

PERM = Use of renewable energy resources used as raw materials

PERT = Total use of renewable primary energy resources

PENRE = Use of non-renewable primary energy resources excluding non-renewable energy resources used as raw materials

PENRM = Use of non-renewable primary energy resources used as raw materials

PENRT = Total use of non-renewable primary energy resources

SM = Use of secondary materials

RSF = Use of renewable secondary fuels

NRSF = Use of non renewable secondary fuels

FW = Use of net fresh water

OUTPUT FLOWS AND WASTE CATEGORIES per functional unit or declared unit (A1 / A2)

	UNIT	A1	A2	А3	A1-A3	A4	A5	В1	B2	ВЗ	В4	В5	C1	C2	СЗ	C4	D
HWD	kg	5.30	3.87	5.51	5.89	8.27	1.62	0.00	5.28	0.00	0.00	0.00	0.00	6.40	1.31	4.76	-3.00
TIWE	Ng	E-4	E-6	E-5	E-4	E-7	E-5	0.00	E-6	0.00	0.00	0.00	0.00	E-7	E-5	E-8	E-4
NHWD	kg	1.36	2.34	2.16	1.81	1.21	7.84	0.00	2.75	0.00	0.00	0.00	0.00	4.76	7.80	2.16	-2.39
IVIIVID	Ng	E+0	E-1	E-1	E+0	E-1	E-2	0.00	E-2	0.00	0.00	0.00	0.00	E-2	E-1	E-1	E-1
RWD	kg	3.90	4.38	1.30	5.64	9.71	1.20	0.00	1.50	0.00	0.00	0.00	0.00	6.86	6.17	3.59	-8.99
TWD	Ng	E-4	E-5	E-4	E-4	E-6	E-5	0.00	E+0	0.00	0.00	0.00	0.00	E+0	E-5	E-7	E-5
CRU	kg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
									E-5						4.44		
MFR	kg	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.11 E+0	0.00	0.00
							2.21								E+0		
MER	kg	0.00	0.00	0.00	0.00	0.00	E+0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
EEE	MJ	0.00	0.00	0.00	0.00	0.00	4.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.52	6.00
	IVIJ	0.00	0.00	0.00	0.00	0.00	E-2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E+1	E-2
ETE	MJ	0.00	0.00	0.00	0.00	0.00	7.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.62	8.50
	1410	0.00	0.00	0.00	0.00	0.00	E-2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	E+1	E-2

HWD = Hazardous Waste Disposed

RWD = Radioactive Waste Disposed

MFR = Materials for recycling

EEE = Exported Electrical Energy

NHWD = Non Hazardous Waste Disposed

CRU = Components for reuse

MER = Materials for energy recovery

ETE = Exported Thermal Energy





BIOGENIC CARBON CONTENT per functional unit or declared unit (A1 / A2)

	UNIT	A1	A2	А3	A1-A3	A4	A5	B1	B2	В3	B4	В5	C1	C2	C3	C4	D
BCCpr	kg C	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
ВССра	kg C	1.10 E-1	0.00	0.00	1.10 E-1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

BCCpr = Biogenic carbon content in product
BCCpa = Biogenic carbon content in packaging



CALCULATION RULES

All relevant input and output are included in the LCA. The definition of relevant input is in par. 2.6.3.5. of the 'Bepalingsmethode' adhered to. In addition, the criteria for input and output have been adhered to in accordance with the 'Bepalingsmethode', section 2.6.3.4., and the NEN 15804, paragraph 6.2. Life cycle inventory data is included for at least 95% of the total inflow to the life cycle stages and a 5% cut-off rule with regard to energy, mass and environmental relevance has been applied. Process data includes infrastructure and capital equipment.

There is no presumption of the absence of significant input or output. Pigments in ink in the decorative layers is excluded, due to the 5% cut-off rule regard to energy, mass and environmental relevance. For installing the product no additional materials are needed. However, there are many scenarios possible to use the product: as wall or floor element or even furniture element. Materials for the different fixation and installation are not included, due to the different applications possibilities. The recycled PET waste is partly from pre-consumer PET waste from other products at the manufacturing plant and partly from post-consumer PET waste.



SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION

A1. Raw materials supply

This module considers the extraction and processing of all raw materials, PET, and secondary materials, recycled PET, and energy that occur upstream of the REPEAT Materials® manufacturing process, as well as waste processing of production waste.

A2. Transport of raw materials to manufacturer

This includes the transport distance of the raw and secondary materials to the manufacturing facility.

A3. Manufacturing

This module covers the manufacturing process of REPEAT Materials® panels and includes all processes linked to production such as extrusion of the (recycled) PET flakes to create the solid and decorative layers, foaming of the (recycled) PET flakes to create the foam layers and lamination to laminated the solid and foam layers into one rPET sandwich panel.

Packaging-related flows in the production process are included in the manufacturing module.





A4. Transport to customers/building site

Since the material comes from abroad (Belgium) and the average distance to the Dutch market is unknown, the distance between the production location (REPEAT Materials® department store in Ostend, Belgium) to Utrecht is used, in accordance with the 'Bepalingsmethode': 255 km, by lorry 16-32 ton.

A5. Construction and installation process

This module includes the production and packaging waste as well as the transport and processing of waste up to the end-of-waste state. For installing the product no additional materials are needed. However, there are many scenarios possible to use the product: as wall or floor element or even furniture element. Materials for the different fixation and installation are not included, due to the different applications possibilities. The installation scenario that is reported in this document requires only hand tools and impact as a result of this process is considered negligible.

B1-7. Use phase

B2. The following cleaning regime or 'maintenance cycle' has been used:

• Every two weeks 0.134 ml of detergent and 0.1 liters of water consumption per week per square meter (1 m²) applied. These values are calculated and recorded for the full Reference Service Life (RSL) of 75 years.

C1. De-construction demolition

The de-installation scenario that is reported in this document requires only hand tools and impact as a result of this process is considered negligible.

C2. Transport to waste treatment

This module includes transport to the waste facilities. Considering the product is applied in buildings throughout the country, a fixed transport distance of 50 km for landfill and recycling has been used for the transport distance to the processing installations.

C3. Waste processing and C4 Disposal

After use, the products can easily be collected and converted into new products, because they contain only one material: PET. Which makes the rPET panels an easily recyclable product. In the end-of-life phase, a recycling scenario will be presented for modules C3 (Waste processing), C4 (Disposal) and D (reuse, recovery, recycling potential):

o C3: 95% recycling. C4: 5% landfill.

D. Benefits and loads beyond the system boundaries

Avoided production of material due to recycling are included in this module.

In the end-of-life scenario for this product, 95% of the material will be recycled. The REPEAT Materials® panels are produced from 75% secondary PET. This gives a net profit of secondary raw materials: 75-95 = 20%. This gain is compensated by adding 20% of the primary material in Module D as a negative value.







DECLARATION OF SVHC

None of the substances contained in the product are listed in the "Candidate List of Substances of Very High Concern for authorization", or they do not exceed the threshold with the European Chemicals Agency.



REFERENCES

General:

- Bepalingsmethode Milieuprestatie Bouwwerken versie 1.1, maart 2022
- NEN-EN 15804+A2:2019 Sustainability of construction works Environmental product declarations
- Core rules for the product category of construction products, November 2019
- NEN-EN-ISO 14040 Environmental management Life cycle assessment Principles and framework (ISO 14040:2006, IDT), July 2006
- NEN-EN-ISO 14044 Environmental management Life cycle assessment Requirements and guidelines (ISO 14044:2006,IDT), July 2006

Product data:

REPEAT Materials®

Databases:

• Eco-Invent Database version 3.6.



REMARKS

None