Environmental Product Declaration

Program Operator: Smart EPD®
www.smartepd.com

IN ACCORDANCE WITH EN 15804+A2 AND EN 16810

SmartEPD-2026-119-0819-01.1

noraplan® mobil (931) 2.5mm

Date of Issue	Expiration Date	Last Updated
Apr 08, 2026	**Apr 08, 2031**	**Jun 01, 2026**

Refer to the EPD Library at **www.smartepd.com** for the latest EPD listing information

General Information

Interface, Inc.

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interface.com

Product Name:	noraplan® mobil (931) 2.5mm
Functional Unit:	1 m2
Declaration Number:	SmartEPD-2026-119-0819-01.1
Date of Issue:	April 08, 2026
Expiration:	April 08, 2031
Last updated:	June 01, 2026
EPD Scope:	Cradle to grave
	A1 - A3, A4, A5, B1 - B7, C1 - C4, D
Market(s) of Applicability:	Europe, United Kingdom of Great Britain and Northern Ireland

General Organization Information

Interface, Inc. is a global flooring solutions company and sustainability leader, offering an integrated portfolio of carpet tile and resilient flooring products — including Interface® carpet tile and LVT, nora® rubber flooring, and FLOR® premium area rugs for commercial and residential spaces.
Interface designs and manufactures products with a focus on high performance, innovative design, and environmental responsibility. A pioneer in industrial sustainability for decades, the company is committed to becoming a restorative, carbon-negative enterprise by 2040 and is pursuing verified science-based targets for 2030.

Further information can be found at: www.interface.com

Limitations, Liability and Ownership

Limitations
Exclusions: EPDs do not indicate that any environmental or social performance benchmarks are met, and there may be impacts that they do not encompass. LCAs do not typically address the site-specific environmental impacts of raw material extraction, nor are they meant to assess human health toxicity. EPDs can complement but cannot replace tools and certifications that are designed to address these impacts and/or set performance thresholds – e.g. Type 1 certifications, health assessments and declarations, environmental impact assessments, etc.

Accuracy of Results: EPDs regularly rely on estimations of impacts; the level of accuracy in estimation of effect differs for any particular product line and reported impact.

Comparability: EPDs from different programs may not be comparable. Full conformance with a PCR allows EPD comparability only when all stages of a life cycle have been considered. However, variations and deviations are possible". Example of variations: Different LCA software and background LCI datasets may lead to differences results for upstream or downstream of the life cycle stages declared.

Liability and Ownership

Interface is the owner of this EPD and is responsible for the accuracy of the data.

Reference Standards

Standard(s):	EN 15804+A2 and EN 16810
Core PCR:	UL Part A PCR for Building-Related Products and Services v.4
	Date of issue: March 01, 2022
Sub-category PCR:	UL Part B: Flooring v.2
	Date of issue: September 28, 2018
	Valid until: September 30, 2026
Sub-category PCR review panel:	Contact Smart EPD for more information.
General Program Instructions:	Smart EPD General Program Instructions v.2.0, March 2025

Verification Information

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Verification:

Independent critical review of the LCA and data, according to ISO 14044 and ISO 14071: External

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Independent external verification of EPD, according to ISO 14025 and reference PCR(s): External

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Product Information

Functional Unit:	1 m2
Mass:	4.18 kg
Reference Service Life:	35 Years
Product Specificity:	✕ Product Average
	✓ Product Specific

Product Description

In this Environmental Product Declaration (EPD), resilient thermoplastic elastomer floor coverings of the product line noraplan® mobil (931) with different designs are modelled.
Specific characteristics of the noraplan® mobil (931) coverings are:

- manufacturing method: continuously vulcanized rubber floor coverings in sheets
- covering structure: single-layered
- no addition of PVC, chlorine-containing polymers and phthalate plasticizers
- permanently resilient and wear-resistant
- suitable for high traffic areas in rail vehicles
- no coating needed
- highly fire retardant according to EN 45545
- no welding required

For the placing on the market of the product in the European Union/European Free Trade Association (EU/EFTA) (with the exception of Switzerland) Regulation (EU) No. 305/2011 (CPR) applies. The product needs a declaration of performance taking into consideration EN 4041:2018-05, Resilient, textile, laminate and modular multilayer floor coverings - Essential characteristics and the CE-marking.
For the application and use the respective national provisions apply.

Further information can be found at: www.interface.com

Product Specifications

Product SKU(s):	• Product SKU(s): NA • Flooring type: Resilient • Product thickness: 2.5 mm • Product weight: 4180 g/m2 • Product form: Sheet • Resilient - Rolls width: 1220 mm • Resilient - Rolls length: 15 m
Product Classification Codes:	**undefined - undefined**
Flooring type:	**Resilient**

Table 1. Material Composition

Material/Component Category	Origin	% Mass
Synthetic Rubber	Europe	38
Mineral Fillers	Europe	47
Auxiliary Substances & Vulcanisation System	Europe	7
Colour pigments	Europe	8

Packaging Material	Origin	kg Mass
PE Foil	Europe	0.003
Wood Pallet	Europe	0.051
Cardboard	Europe	0.156
Paper	Europe	0.03

Biogenic Carbon Content	kg C per m2
Biogenic carbon content in product	0.06
Biogenic carbon content in accompanying packaging	0.08

Hazardous Materials
No regulated hazardous or dangerous substances are included in this product.

EPD Data Specificity

Primary Data Year: 2024

Manufacturing Specificity:

- ✗ Industry Average
- ✗ Manufacturer Average
- ✓ Facility Specific

Averaging:

Averaging was not conducted for this EPD

Table 2. System Boundary

Production	A1	Raw material supply	✓
	A2	Transport	✓
	A3	Manufacturing	✓
Construction	A4	Transport to site	✓
	A5	Assembly / Install	✓

Use	B1	Use	✓
	B2	Maintenance	✓
	B3	Repair	✓
	B4	Replacement	✓
	B5	Refurbishment	✓
	B6	Operational Energy Use	✓
	B7	Operational Water Use	✓
End of Life	C1	Deconstruction	✓
	C2	Transport	✓
	C3	Waste Processing	✓
	C4	Disposal	✓
Benefits & Loads Beyond System Boundary	D	Recycling, Reuse Recovery Potential	✓

Note:

ND = Module not declared

Product Composition Diagram

	PRODUCT STAGE			CONSTRUCTION PROCESS STAGE		USE STAGE							END OF LIFE STAGE				BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARY
	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
	Raw material supply	Transport	Manufacturing	Transport from gate to site	Assembly/Install	Use	Maintenance	Repair	Replacement	Refurbishment	Building operational energy use during product use	Building operational water use during product use	Deconstruction	Transport	Waste processing	Disposal	Reuse, Recovery, Recycling Potential
EPD Type	X			X	X	ND	X	ND	ND	ND	ND	ND	ND	X	X	X	X

Plants

nora systems GmbH Höhnerweg 2-4, Weinheim, Germany

Product Flow Diagram

The production stages are weighing, mixing, and stretching of the unvulcanised blanks on a calender. The following vulcanisation is continuously executed on production lines with steam heated drum or double belt presses, where the sheets are produced under high pressure and at a temperature of approximately 180°C. After the vulcanising machine, the flooring is sanded on the backside and then wound into rolls. The mass per unit area is 4.18 kg/m².

nora systems GmbH purchases the total electrical energy for production and administration at the site Weinheim from renewable energy sources. Respective evidence has been approved by the verifier. Thermal energy is generated centrally and in heating boilers from natural gas.

Our quality and energy management is certified according to *DIN EN ISO 9001* and *DIN EN ISO 50001*.

Software And Database

LCA Software:	Sphera LCA for Experts (formerly GaBi) v. 10.9
LCI Foreground Database(s):	Sphera Managed LCA Content (formerly GaBi Professional Database) v. 2025.1
	Europe
LCI Background Database(s):	Sphera Managed LCA Content (formerly GaBi Professional Database) v. 2025.1
	Europe

A foreground LCI database is the database used to model the primary, site-specific data collected for this EPD. A background LCI database is the database used to model generic or non-specific data.

Data Quality

Datasets were, if available, taken from the above mentioned MLC 2025.1 database. Further datasets on the upstream chain of the basic material production are approximated with datasets on similar chemicals or are estimated by consolidation of existing datasets and literature information.
The data quality can be described as good.

The data quality ranges from good to very good. The temporal quality of the data is very good with both the manufacturing specific data and the LCA FE background data being from 2024.

Life Cycle Module Description

A1–A3: Product Stage

- A1: Raw material extraction and processing, including recycled materials
- A2: Transport of raw and processed materials to manufacturing sites
- A3: Manufacturing at site, including materials, packaging, energy, and waste disposal or recycling. All energy purchased at manufacturing sites is allocated per square meter produced, including offices and warehouses. 100% renewable electricity and thermal energy credits are used for all sites. Waste factor in production. Rubber flooring involves compounding, pressing, vulcanisation, and packaging

A4–A5: Construction Stage

- A4: Transport of finished product to building site
- A5: Installation includes ancillary materials (adhesives), trim waste disposal, and packaging waste. Assumed 5% installation waste for all flooring types. Installation waste sent to incineration or landfill, with energy recovery benefits accounted for in Module D. Industry recommendations followed for adhesive types

B1–B7: Use Stage

- B2: Maintenance effort declared for one year, repeated over the Reference Service Life (RSL). Rubber flooring: machine cleaning (annual), manual cleaning (biweekly).
- Other Use Modules (B1, B3–B7): Not relevant or not declared for these flooring products

C1–C4: End of Life

- C1: Deconstruction process which requires electricity to remove the product from the building at end of life. This requirement is modeled with DE:Electricity grid mix
- C2: Transport of waste to local disposal using diesel truck datasets
- C3: Waste processing for reuse, recovery, or recycling
- C3/1: 100% scenario for incineration with Energy recovery processing which includes an incineration process with an R1-value >0.6
- C3/2: 100% scenario for waste processing through landfill
- C4: Disposal of post-consumer carpet tile, incineration without energy recovery or landfill
- C4/1: 100% scenario for disposal through the incineration with energy recover
- C4/2: 100% scenario for disposal through landfill

Module D: Benefits and Loads Beyond the System Boundary

- Two end-of-life scenarios are modelled, resulting in two Module D scenarios: Module D/1 and Module D/2
- In Module D/1, the avoided benefits and loads associated with 100% incineration with energy recovery scenario are calculated using RER: Electricity grid mix and RER: Process steam from natural gas as substituted energy sources
- In Module D/2, the avoided benefits and loads associated with 100% landfill scenario are set to zero, as the landfilling of plastics does not result in energy recovery
- Both Module D/1 and Module D/2 scenarios account for avoided benefits and loads from A5, which include recycling, incineration with energy recovery of packaging waste, and incineration with energy recovery of installation waste

LCA Discussion

Allocation Procedure

Co-product allocation:
No co-products are produced in the manufacturing process for noraplan®mobil (931) , so allocation between co-products is not required.
Recycled and secondary raw materials:
Allocation for recycled content (such as post-production recycling and recycled packaging) follows the “cut-off” approach. Only the environmental burdens associated with the collection and processing of recycled materials up to the point of entry into the product system are included. No upstream burdens from previous product life cycles are assigned to the recycled content.
Energy, ancillary, and operating materials:
Energy use, ancillary materials (adhesives, cleaning agents, packaging), and operating materials are allocated to individual products based on production volumes and process-specific consumption data. Where direct measurement is not possible, allocation is performed using mass or area-based proxies (e.g., per square meter of product). In-plant waste is assigned to the product and not allocated to other products, as there are no co-products.
Factory-wide allocation:
If multiple products are produced in the same facility, shared energy and utilities are allocated according to the proportion of production output (mass or area) attributable to each product. No credits are taken for recycling of production waste; all relevant impacts are assigned to the declared product.

Cut-off Procedure

In the Life Cycle Assessment (LCA) for noraplan®mobil (931), flooring product, cut-off criteria were rigorously applied to determine which material and energy flows should be included or excluded from the analysis. The objective was to ensure the study was both thorough and practical, focusing on flows that could meaningfully affect the environmental results.
The cut-off criteria were based on thresholds for mass and energy, specifically:

- Any flow representing less than one percent of the total mass or energy for a given process could be excluded, provided it was not considered environmentally significant.
- If a flow met the exclusion threshold but was thought to have a notable environmental impact, it was included regardless of its size.
- The total sum of all excluded flows does not exceed five percent of the overall mass or energy for the product system.

In practice, this meant that all relevant flows—such as raw materials, processing, transportation, manufacturing, packaging, installation, maintenance, disposal, and recycling—were considered in the assessment. Flows that were excluded typically involved capital goods and equipment, or human labor and commuting, as these were not expected to contribute significantly to the results. Where specific data from suppliers was unavailable, conservative proxy datasets were used to ensure that any potentially important flows were still represented.

Renewable Electricity

Energy Attribute Certificates (EACs) such as Renewable Energy Certificates (RECs) or Power Purchase Agreements (PPAs) are included in the baseline reported results:	✓ Yes
Electricity Source:	Offsite
Renewable type(s):	Wind, Hydra, Solar
Percent of EPD Owner's product-related electricity covered:	100 %
Commitment pledged for entire EPD validity period:	✓ Yes
Electricity accounting methodology:	Market-based

Scenarios

Transport to the building/construction site (A4)

A4 Module

Fuel Type:	Diesel
Liters of Fuel:	0.0021 l/100km
Vehicle Type:	Truck
Transport Distance:	1000 km
Capacity Utilization:	61% %
Packaging Mass:	0.06 kg
Gross density of products transported:	1600 kg/m3
Capacity utilization volume factor:	=1
Assumptions for scenario development:	Transport is from the factory gate to the place of installation. Thickness of 2.5 mm 0.0107 kg diesel per 500 km per kg of product 0.00277 kg Heavy Fuel Oil per 1000 km per kg of product All values refer to the declared functional unit (1 m²). Packaging waste and installation waste are considered in subsequent modules (A5, C1–C4) Preparation of the floor and auxiliaries (adhesives, fixing agents, PET connectors) are included
Fuel Type - Ship:	Heavy Fuel Oil
Transport Distance - Ship:	1000 km
Vehicle Type:	Ship
Capacity Utilization:	70 %
Liters of Fuel:	0.00107 l/100 km

Installation in to the building/construction site (A5)

A5 Module

Installation Scrap Rate Assumed:	5 %
Ancillary Materials:	0.3 kg
Net Fresh Water Consumption Specified by Water Source and Fate:	0 m3
Other Resources:	0 kg
Electricity Consumption:	0 kWh
Other Energy Carriers:	0 MJ
Product Lost per Declared/Functional Unit:	0.209 kg
Waste Materials at the Construction Site Before Waste Processing:	0.209 kg
Output Materials Resulting from On-site Waste Processing:	0.01 kg
Mass of Packaging Waste Specified by Type:	0.01 kg
Biogenic Carbon Contained in Packaging (kg C):	0.05 kg
Assumptions for scenario development:	For installation, two different options are available: - 250 g/m2 standard dispersion adhesive - nTx adhesive system: Inhouse hot meld application of 175 g/m2. The installation of the floor covering is based on the technical regulations of DIN 18365 Flooring works. Suitable subfloors are made of screed according DIN 18353, hard poured asphalt according to DIN 18354 Asphalt flooring work, chipboards, plywood, etc. Before installing rubber floor coverings, the subfloor generally has to be levelled. The application of the adhesives over the entire surface is done in accordance with the

installation recommendations of the nora systems GmbH, using adhesives and further auxiliary material approved and available e.g. at www.nora.com. When selecting the installation materials the requirements of the basic award criteria of the Blue Angel – 'Low-Emission Floor Covering Adhesive and other Installation Materials' (DE-UZ 113) should be observed, alternatively GEV-EMICODE EC1plus. These specifications ensure excellent health protection due to minimized emissions. In addition, the instructions of the laying material manufacturers are generally to be followed. When working with laying auxiliary material, the latest version of the German standard TRGS 610 is to be complied with. Offcuts should be used for energy recovery. Initial cleaning and initial polishing may only be carried out after the bonding phase of the adhesive, i.e. at the earliest 48 hours after installation.

Maintenance (B2)

B2 Module

Maintenance Cycle:	3680 Cycles/RSL 7800 Cycles/ESL
Net Fresh Water Consumption Specified by Water Source and Fate:	0.008256 m3
Energy Input:	2.78 kWh
Waste Materials from Maintenance:	0.0017 kg
Maintenance Process Information:	Cleaning of the floor covering depends on the use of the premises. A kind of 'average' cleaning scenario is assumed following the recommendation of the manufacturer. 1x yearly: machine intensive cleaning with 250 ml/m² cleaning solution (5% solution); use of single disc machine (1,1 kW, 0,5 h/100 m²) and wet vacuum cleaner (1,0 kW, 0,25 h/100 m²); 2x weekly: manual cleaning with 80 ml/m² cleaning solution (0,5% solution);
Further assumptions for scenario development:	RSL = 35 years ESL = 75 years

End of Life (C1 - C4)

C1 - C4 Modules

C3/1 & C4/1: 100% Energy Recovery

Collection Process

Collected Separately: 4.18 kg

Recovery

Incineration with Energy Recovery: 4.18 kg

Disposal

Product or Material for Final Disposal: 0 kg

Assumptions for scenario development:
C3/1 – Waste processing (incineration with energy recovery end-of-life): Waste processing by incineration with energy recovery; 100% of the waste mass is treated by incineration in an installation with an R1-value > 0.6. C4/1 – Waste disposal (incineration with energy recovery end-of-life): Final disposal of 100% of the incineration residues in accordance with current disposal practices.

C3/2 & C4/2: 100% Landfill

Collection Process

Recovery

Landfill:	4.18 kg

Disposal

Product or Material for Final Disposal:	4.18 kg

Assumptions for scenario development:
C3/2 – Waste processing (landfill end-of-life): No waste processing is assumed; 100% of the waste mass is sent directly to landfill as the end-of-life scenario.
C4/2 – Waste disposal (landfill end-of-life): Final disposal of 100% of the waste mass through landfilling, including landfill operation and management, in accordance with current disposal practices.

Reuse, Recovery and / or Recycling Potentials & Relevant Scenario Information (D)

D Module

Net Energy Benefit from Energy Recovery from Waste Treatment Declared as Export Energy in C3:	5.67 MJ
Net Energy Benefit from Thermal Energy Due to Treatment of Waste Declared as Exported Energy in C4:	10.2 MJ
Process and Conversion Efficiencies:	The assumed scenario in Module D/1 represents 100% incineration with energy recovery processing including an efficiency rate with an R1-value >0.6 In Module D/2, the avoided benefits and loads associated with 100% landfill scenario are set to zero, as the landfilling of plastics does not result in energy recovery. However, both Module D/1 and Module D/2 scenarios account for avoided benefits and loads from A5, which include recycling, incineration with energy recovery of packaging waste, and incineration with energy recovery of installation waste.
Further assumptions for scenario development:	The end-of-life scenarios modeled in Module C and Module D are based on national statistics for flooring to represent real-world scenarios. Interface intends for its products to be recycled at end-of-life . For noraplan® rubber floor coverings there are the following options: - Material recycling (e.g. granulating and processing into landing mats, industrial or stable mats, and coverings of sports areas or silent asphalt) - Thermal recycling (e.g. use as substitute fuel in thermal power plants) - Full material and thermal recycling for energy recovery in the cement industry. Use of stored thermal energy as well as use of mineral filler as raw material.

Results

Table 3. Environmental Impact Assessment Results

EF3.1, IPCC AR5 GWP 100, TRACI 2.2, CML 2016 v4.8

per 1 m2 of product.

LCIA results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins or risks.

Impact Category	Unit	Method	A1 - A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3/1	C3/2	C4/1	C4/2	D/1	D/2	D/3
GWP- total	kg CO2 eq	EF3.1	1.21e+1	2.24e-1	1.32e+0	ND	3.29e-1	ND	ND	ND	ND	ND	ND	1.74e-2	3.31e+0	0	0	1.36e-1	-1.28e+0	6.02e-2	ND
GWP- fossil	kg CO2 eq	EF3.1	1.26e+1	2.26e-1	1.30e+0	ND	3.19e-1	ND	ND	ND	ND	ND	ND	1.76e-2	3.31e+0	0	0	1.35e-1	-1.53e+0	-1.95e-1	ND
GWP-biogenic	kg CO2 eq	EF3.1	-6.33e-1	-3.90e-3	3.56e-1	ND	9.68e-3	ND	ND	ND	ND	ND	ND	-3.89e-4	3.78e-1	0	0	3.78e-1	2.51e-1	2.57e-1	ND
GWP-luluc	kg CO2 eq	EF3.1	1.80e-1	1.84e-3	9.03e-3	ND	8.94e-5	ND	ND	ND	ND	ND	ND	1.81e-4	8.45e-5	0	0	3.71e-4	-2.70e-3	-1.03e-3	ND
ODP	kg CFC11 eq	EF3.1	3.27e-8	3.41e-14	2.72e-10	ND	2.75e-11	ND	ND	ND	ND	ND	ND	2.92e-15	2.51e-13	0	0	4.62e-13	-1.25e-11	-1.12e-12	ND
AP	mol H+ eq	EF3.1	3.38e-2	1.54e-3	2.93e-3	ND	1.00e-3	ND	ND	ND	ND	ND	ND	6.29e-5	3.28e-4	0	0	8.06e-4	-2.01e-3	-5.26e-4	ND
PM	disease incidence	EF3.1	5.03e-7	2.75e-8	3.52e-8	ND	1.28e-8	ND	ND	ND	ND	ND	ND	4.35e-10	3.09e-9	0	0	8.30e-9	-2.66e-8	-1.45e-8	ND
IRP	kBq U235 eq	EF3.1	2.83e-1	7.09e-4	1.28e-1	ND	1.30e-1	ND	ND	ND	ND	ND	ND	6.10e-5	4.43e-3	0	0	4.33e-3	-2.87e-1	-2.15e-2	ND
POCP	kg NMVOC eq	EF3.1	3.26e-2	1.62e-3	2.45e-3	ND	9.93e-4	ND	ND	ND	ND	ND	ND	5.75e-5	2.48e-4	0	0	5.52e-4	-1.71e-3	-5.06e-4	ND
EP-fw	kg P eq	EF3.1	4.55e-5	4.93e-7	5.66e-6	ND	1.09e-5	ND	ND	ND	ND	ND	ND	4.74e-8	7.06e-8	0	0	7.55e-5	-3.41e-6	-2.30e-6	ND
EP-marine	kg N eq	EF3.1	1.03e-2	6.89e-4	7.19e-4	ND	2.16e-4	ND	ND	ND	ND	ND	ND	2.99e-5	8.74e-5	0	0	1.75e-4	-6.74e-4	-2.35e-4	ND
EP-terrestrial	mol N eq	EF3.1	1.11e-1	7.51e-3	7.61e-3	ND	1.91e-3	ND	ND	ND	ND	ND	ND	3.23e-4	1.56e-3	0	0	1.91e-3	-7.16e-3	-2.26e-3	ND
SQI	dimensionless	EF3.1	7.03e+1	1.01e+0	3.60e+0	ND	2.16e-1	ND	ND	ND	ND	ND	ND	9.95e-2	1.68e-1	0	0	3.46e-1	-2.88e+1	-2.47e+1	ND
WDP	m3 world eq deprived	EF3.1	3.41e+0	9.04e-4	2.96e-1	ND	5.49e-2	ND	ND	ND	ND	ND	ND	8.04e-5	2.84e-1	0	0	1.67e-2	-1.50e-1	-2.42e-2	ND
ADP-fossil	MJ, net calorific value	EF3.1	2.36e+2	2.84e+0	2.56e+1	ND	8.00e+0	ND	ND	ND	ND	ND	ND	2.25e-1	5.24e-1	0	0	2.24e+0	-2.64e+1	-3.05e+0	ND
ADP-minerals&metals	kg Sb eq	EF3.1	1.74e-4	1.30e-8	9.03e-6	ND	5.85e-8	ND	ND	ND	ND	ND	ND	1.17e-9	3.00e-9	0	0	9.19e-9	-1.90e-7	-6.82e-8	ND
ETP-fwio	CTUe	EF3.1	1.51e+2	2.06e+0	1.32e+1	ND	1.46e+0	ND	ND	ND	ND	ND	ND	1.63e-1	1.89e-1	0	0	1.48e+0	-2.19e+0	-5.00e-1	ND
ETP-fwo	CTUe	EF3.1	4.09e+0	1.32e+0	2.59e-1	ND	2.23e-2	ND	ND	ND	ND	ND	ND	1.29e-1	5.92e-2	0	0	3.64e+0	-5.54e-1	-3.30e-1	ND
HTP-cio	CTUh	EF3.1	1.73e-9	4.49e-11	1.58e-10	ND	7.13e-11	ND	ND	ND	ND	ND	ND	3.84e-12	2.98e-12	0	0	6.45e-11	-5.38e-11	-1.94e-11	ND

Impact Category	Unit	Method	A1 - A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3/1	C3/2	C4/1	C4/2	D/1	D/2	D/3
HTP-co	CTUh	EF3.1	1.83e-9	1.33e-12	1.11e-10	ND	1.91e-11	ND	ND	ND	ND	ND	ND	1.11e-13	1.59e-11	0	0	6.02e-12	-2.16e-10	-2.18e-11	ND
HTP-ncio	CTUh	EF3.1	5.52e-8	2.19e-9	4.31e-9	ND	6.57e-9	ND	ND	ND	ND	ND	ND	2.07e-10	1.49e-10	0	0	7.94e-10	-5.23e-9	-1.81e-9	ND
HTP-nco	CTUh	EF3.1	3.17e-9	1.50e-10	3.09e-10	ND	6.22e-11	ND	ND	ND	ND	ND	ND	1.39e-11	1.55e-11	0	0	4.59e-10	-2.72e-10	-5.74e-11	ND
GWP-total	kg CO2 eq	IPCC AR5 GWP 100	1.24e+1	2.29e-1	1.35e+0	ND	3.36e-1	ND	ND	ND	ND	ND	ND	1.78e-2	3.31e+0	0	0	1.39e-1	-1.31e+0	5.65e-2	ND
ODP	kg CFC 11 eq	TRACI 2.2	4.25e-8	4.05e-14	1.94e-10	ND	5.44e-11	ND	ND	ND	ND	ND	ND	3.47e-15	2.95e-13	0	0	5.46e-13	-1.32e-12	-1.32e-12	ND
AP	kg SO2 eq	TRACI 2.2	2.94e-2	1.40e-3	2.49e-3	ND	8.41e-4	ND	ND	ND	ND	ND	ND	5.69e-5	2.58e-4	0	0	6.87e-4	-4.59e-4	-4.59e-4	ND
EP-freshwater	kg P eq	TRACI 2.2	2.05e-5	2.23e-7	2.79e-6	ND	4.91e-6	ND	ND	ND	ND	ND	ND	2.14e-8	3.19e-8	0	0	4.10e-5	-1.04e-6	-1.04e-6	ND
EP-marine	kg N eq	TRACI 2.2	1.69e-2	1.18e-3	1.16e-3	ND	2.96e-4	ND	ND	ND	ND	ND	ND	4.92e-5	1.77e-4	0	0	2.98e-4	-3.27e-4	-3.27e-4	ND
POCP	kg O3 eq	TRACI 2.2	6.01e-1	3.67e-2	4.22e-2	ND	1.14e-2	ND	ND	ND	ND	ND	ND	1.22e-3	5.20e-3	0	0	1.07e-2	-1.03e-2	-1.03e-2	ND
ODP	kg CFC-11 eq	CML 2016 v4.8	4.19e-8	4.05e-14	3.23e-10	ND	5.12e-11	ND	ND	ND	ND	ND	ND	3.47e-15	2.95e-13	0	0	5.46e-13	-1.47e-11	-1.32e-12	ND
AP	kg SO2 eq	CML 2016 v4.8	3.80e-2	1.09e-3	2.96e-3	ND	8.52e-4	ND	ND	ND	ND	ND	ND	4.30e-5	2.06e-4	0	0	6.69e-4	-1.56e-3	-3.79e-4	ND
EP	kg PO4 eq	CML 2016 v4.8	4.47e-3	2.46e-4	3.66e-4	ND	1.47e-4	ND	ND	ND	ND	ND	ND	1.14e-5	4.64e-5	0	0	8.91e-4	-3.06e-4	-1.13e-4	ND
POCP	kg C2H4 eq	CML 2016 v4.8	3.45e-3	-9.54e-5	3.36e-4	ND	2.92e-4	ND	ND	ND	ND	ND	ND	-1.25e-5	2.12e-5	0	0	5.87e-5	-1.60e-4	-1.65e-5	ND
ADP-fossil	MJ	CML 2016 v4.8	2.30e+2	2.82e+0	2.50e+1	ND	7.48e+0	ND	ND	ND	ND	ND	ND	2.24e-1	4.45e-1	0	0	2.15e+0	-2.14e+1	-2.65e+0	ND

Note:

Not all abbreviated indicators listed below may be present in the results above. The inclusion of indicators varies based on PCR requirements.

Abbreviations:

GWP = Global Warming Potential, 100 years (may also be denoted as GWP-total, GWP-fossil (fossil fuels), GWP-biogenic (biogenic sources), GWP-luluc (land use and land use change)), ODP = Ozone Depletion Potential, AP = Acidification Potential, EP = Eutrophication Potential, SFP = Smog Formation Potential, POCP = Photochemical oxidant creation potential, ADP-Fossil = Abiotic depletion potential for fossil resources, ADP-Minerals&Metals = Abiotic depletion potential for non-fossil resources, WDP = Water deprivation potential, PM = Particular Matter Emissions, IRP = Ionizing radiation, human health, ETP-fw = Eco-toxicity (freshwater), HTP-c = Human toxicity (cancer), HTP-nc = Human toxicity (non-cancer), SQP = Soil quality index.

Comparisons cannot be made between product-specific or industry average EPDs at the design stage of a project, before a building has been specified. Comparisons may be made between product-specific or industry average EPDs at the time of product purchase when product performance and specifications have been established and serve as a functional unit for comparison. Environmental impact results shall be converted to a functional unit basis before any comparison is attempted. Any comparison of EPDs shall be subject to the requirements of ISO 21930 or EN 15804. EPDs are not comparative assertions and are either not comparable or have limited comparability when they have different system boundaries. EPDs are not comparative assertions and are either not comparable or have limited comparability when they have different system boundaries, are based on different product category rules or are missing relevant environmental impacts. Such comparison can be inaccurate, and could lead to erroneous selection of materials or products which are higher-impact, at least in some impact categories.

Table 4. Resource Use Indicator

per 1 m2 of product.

Indicator	Unit	A1 - A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3/1	C3/2	C4/1	C4/2	D/1	D/2	D/3
PERE	MJ	3.46e+1	1.75e-1	5.04e+0	ND	5.50e-1	ND	ND	ND	ND	ND	ND	1.70e-2	2.71e+1	0	0	3.74e-1	-1.11e+1	-4.13e+0	ND
PERM	MJ	2.86e+1	0	-1.64e+0	ND	0	ND	ND	ND	ND	ND	ND	0	-2.70e+1	0	0	0	0	0	ND
PERT	MJ	6.32e+1	1.75e-1	3.40e+0	ND	5.50e-1	ND	ND	ND	ND	ND	ND	1.70e-2	1.44e-1	0	0	3.74e-1	-1.11e+1	-4.13e+0	ND
PENRE	MJ	1.40e+1	2.84e+0	3.83e+1	ND	8.00e+0	ND	ND	ND	ND	ND	ND	2.25e-1	2.10e+2	0	0	2.24e+0	-2.64e+1	-3.05e+0	ND
PENRM	MJ	2.22e+2	0	-1.27e+1	ND	0	ND	ND	ND	ND	ND	ND	0	-2.09e+2	0	0	0	0	0	ND
PENRT	MJ	2.36e+2	2.84e+0	2.56e+1	ND	8.00e+0	ND	ND	ND	ND	ND	ND	2.25e-1	5.24e-1	0	0	2.24e+0	-2.64e+1	-3.05e+0	ND
SM	kg	0	0	0	ND	0	ND	ND	ND	ND	ND	ND	0	0	0	0	0	0	0	ND
RSF	MJ	0	0	0	ND	0	ND	ND	ND	ND	ND	ND	0	0	0	0	0	0	0	ND
NRSF	MJ	0	0	0	ND	0	ND	ND	ND	ND	ND	ND	0	0	0	0	0	0	0	ND
FW	m3	9.96e-2	8.85e-5	7.92e-3	ND	1.41e-3	ND	ND	ND	ND	ND	ND	8.39e-6	6.67e-3	0	0	4.89e-4	-6.65e-3	-1.23e-3	ND
RE	MJ	0	0	7.89e-1	ND	0	ND	ND	ND	ND	ND	ND	0	1.59e+1	0	0	0	0	0	ND

Note:

Not all abbreviated indicators listed below may be present in the results above. The inclusion of indicators varies based on PCR requirements.

Abbreviations:

RPRE or PERE = Renewable primary resources used as energy carrier (fuel), RPRM or PERM = Renewable primary resources with energy content used as material, RPRT or PERT = Total use of renewable primary resources with energy content, NRPRE or PENRE = Non-renewable primary resources used as an energy carrier (fuel), NRPRM or PENRM = Non-renewable primary resources with energy content used as material, NRPRT or PENRT = Total non-renewable primary resources with energy content, SM = Secondary materials, RSF = Renewable secondary fuels, NRSF = Non-renewable secondary fuels, RE = Recovered energy, ADPF = Abiotic depletion potential, FW = Use of net freshwater resources, VOCs = Volatile Organic Compounds.

Table 5. Waste and Output Flow Indicators

per 1 m2 of product.

Indicator	Unit	A1 - A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3/1	C3/2	C4/1	C4/2	D/1	D/2	D/3
HWD	kg	5.55e-5	1.11e-10	2.84e-4	ND	4.14e-4	ND	ND	ND	ND	ND	ND	9.03e-12	2.83e-10	0	0	5.01e-10	-3.49e-8	-2.14e-8	ND
NHWD	kg	2.75e+0	3.64e-4	1.87e-1	ND	1.80e-2	ND	ND	ND	ND	ND	ND	3.14e-5	9.95e-2	0	0	4.46e+0	-1.52e-2	-4.27e-3	ND
RWD	kg	2.17e-3	4.97e-6	2.59e-4	ND	2.03e-4	ND	ND	ND	ND	ND	ND	4.25e-7	2.82e-5	0	0	3.23e-5	-1.73e-3	-1.35e-4	ND
CRU	kg	0	0	0	ND	0	ND	ND	ND	ND	ND	ND	0	0	0	0	0	0	0	ND
MFR	kg	0	0	1.89e-1	ND	0	ND	ND	ND	ND	ND	ND	0	0	0	0	0	0	0	ND
MER	kg	0	0	2.22e-1	ND	0	ND	ND	ND	ND	ND	ND	0	4.48e+0	0	0	0	0	0	ND
EEE	MJ	0	0	2.64e-1	ND	0	ND	ND	ND	ND	ND	ND	0	5.67e+0	0	0	0	0	0	ND
EET	MJ	0	0	5.25e-1	ND	0	ND	ND	ND	ND	ND	ND	0	1.02e+1	0	0	0	0	0	ND

Note:

Not all abbreviated indicators listed below may be present in the results above. The inclusion of indicators varies based on PCR requirements.

Abbreviations:

HWD = Hazardous waste disposed, NHWD = Non-hazardous waste disposed, RWD = Radioactive waste disposed, HLRW = High-level radioactive waste, ILLRW = Intermediate- and low-level radioactive waste, CRU = Components for re-use, MFR or MR = Materials for recycling, MER = Materials for energy recovery, MNER = Materials for incineration, no energy recovery, EE or EEE = Recovered energy exported from the product system, EET = Exported thermal energy.

Table 6. Carbon Emissions and Removals

per 1 m2 of product.

Indicator	Unit	A1 - A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3/1	C3/2	C4/1	C4/2	D/1	D/2	D/3
BCRP	kg CO2	3.98e-1	0	0	ND	0	ND	ND	ND	ND	ND	ND	0	0	0	0	0	0	0	ND
BCEP	kg CO2	0	0	1.99e-2	ND	0	ND	ND	ND	ND	ND	ND	0	3.78e-1	0	0	3.78e-1	0	0	ND
BCRK	kg CO2	3.26e-1	0	0	ND	0	ND	ND	ND	ND	ND	ND	0	0	0	0	0	0	0	ND
BCEK	kg CO2	0	0	3.26e-1	ND	0	ND	ND	ND	ND	ND	ND	0	0	0	0	0	0	0	ND

Note:

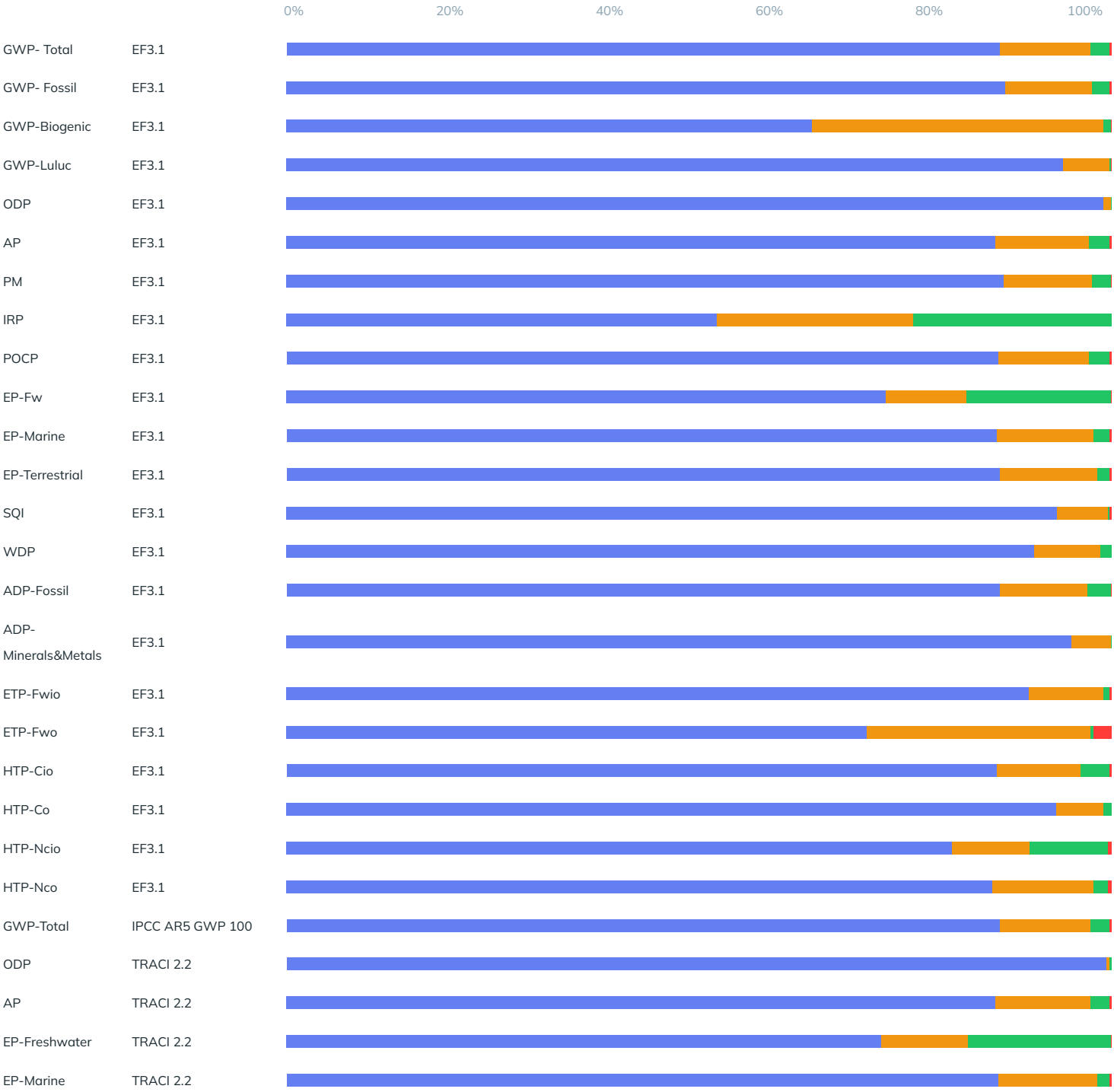
Not all abbreviated indicators listed below may be present in the results above. The inclusion of indicators varies based on PCR requirements.

Abbreviations:

BCRP = Biogenic Carbon Removal from Product, BCEP = Biogenic Carbon Emission from Product, BCRK = Biogenic Carbon Removal from Packaging, BCEK = Biogenic Carbon Emission from Packaging, BCEW = Biogenic Carbon Emission from Combustion of Waste from Renewable Sources Used in Production Processes, CCE = Calcination Carbon Emissions, CCR = Carbonation Carbon Removals, CWNR = Carbon Emissions from Combustion of Waste from Non-Renewable Sources used in Production Processes, GWP-luc = Carbon Emissions from Land-use Change.

Interpretation

The life cycle impacts of nora rubber flooring is driven by the Product Stage (A1-A3) and the impacts from this stage are driven by raw materials. Pigments and rubber polymers are the major contributors to impacts. Biobased and recycled materials help in reducing the impacts as compared to virgin petrochemical based materials counterparts.



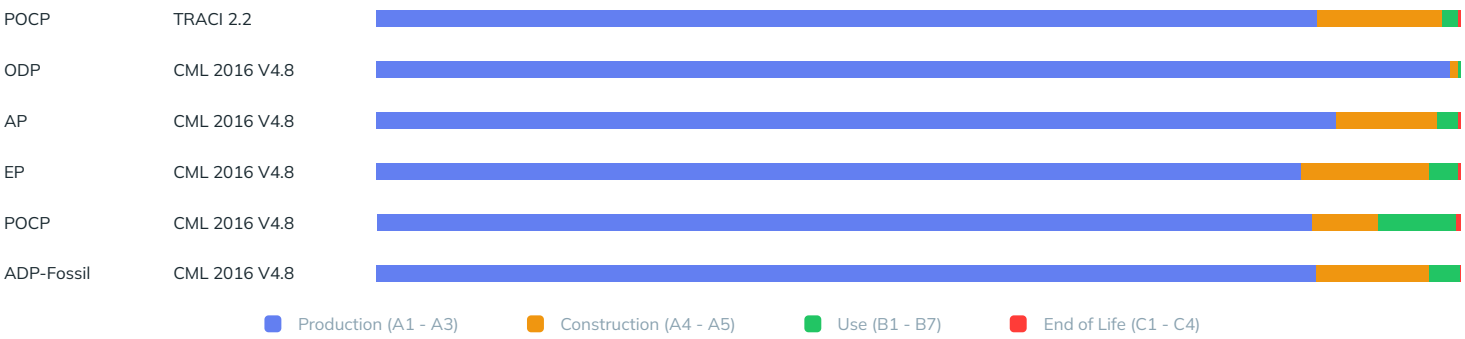


Table 7. Environmental Activities and Certifications

Certification
Indoor Air Comfort Gold
None
None
None

Further Information

For more a full list of associated certifications and documentation, please visit interface.com/sustainability.

noraplan (mobil) 931 - all thicknesses

EN 15804+A2 (kg CO2 eq/m2)	2mm	2.5mm	3mm
Climate Change - total	10.0	12.1	14.3
Climate Change, fossil	10.5	12.6	14.7
Climate Change, biogenic	-0.594	-0.633	-0.673
Climate Change, luluc	0.148	0.180	0.213

References

ISO 14025 Environmental labels and declarations – Type III environmental declarations – Principles and procedures
ISO 14040 Environmental management – Life cycle assessment – Principles and framework
ISO 14044:2006 + Amendments Environmental management – Life cycle assessment – Requirements and guidelines
ISO 21930:2017 Sustainability in buildings and civil engineering works — Core rules for environmental product declarations of construction products and services
EN 15804:2019 + A2 Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products
EN 16810:2017 Resilient, textile and laminate floor coverings – Environmental product declarations – Product category rules
EN ISO 23997 Specifies weight per unit area for flooring products
EN ISO 24346 Specifies thickness for flooring products
EN ISO 10874 Classification of floor coverings for heavy traffic areas
ISO 15686 Reference Service Life calculation (not applied for rubber flooring)

ISO/IEC 25010 Software Product Quality
ISO/IEC 27001 Information Security Management
OWASP SAMM Software Assurance Maturity Model
UL Environment Part A Life Cycle Assessment Calculation Rules and Report Requirements according to ISO 21930:2017, version 4.0
PCR Guidance for Building-Related Products and Services – Part B UL Flooring EPD Requirements, UL 10010-7, v.2, September 2018, Extended to March 31, 2026
EPA Criteria for Product Category Rules (PCRs) To Support the Label Program for Low Embodied Carbon Construction Materials, U.S. Environmental Protection Agency, 2024
LCA FE (GaBi) 10.9.0.31 (2024) Software-System and Databases for Life Cycle Engineering (Sphera)
Sphera LCA FE databases Used for secondary data and modelling
Environmental Footprint (EF) 3.1 Characterisation factors (European Commission JRC, 2022)
TRACI 2.2 Tool for the Reduction and Assessment of Chemicals and other Environmental Impacts (US EPA, 2021)
CML 2001 Operational guide to the ISO standards (Guinee et al.), Centre for Milieukunde (CML) Leiden
ERASM, FEFCO, Plastics Europe Industry associations for secondary data
UL Environment PCRs (Part A and Part B) For EPD creation and verification
ACLCA PCR Open Standard Guidance for Quantifying Renewable Electricity Instruments in Environmental Product Declarations. ACLCA. 2022
ELCD European Commission Joint Research Center (2008). LCA Tools, Services and Data
Frischknecht, Rolf (2009) LCI modelling approaches applied on recycling of materials
US EPA (2024) C-MORE EPD Criteria for Data Quality and Transparency
ISO/TR 14047 Examples of impact categories and mechanisms