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Geographical Scope : Manufactured in Sharjah (UAE)

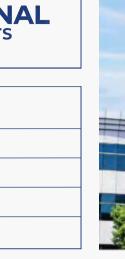
and distributed globally.







EPD Owner:	National Paints Factories Co. Ltd.	
Address :	Industrial Area 13 Maleha Road P.O. Box 5822 Sharjah (United Arab Emirates)	NATIONAL
Website : Email :	www.nationalpaints.com mehmood.khan@nationalpaints.com	PAINTS









The EPD owner has the sole ownership, liability and responsibility for the EPD.

EPDs within the same product category but registered in different EPD programs may not be comparable. For two EPDs to be comparable, they must be based on the same PCR (including the same version number) or be based on fully-aligned PCRs or versions of PCRs; cover products with identical functions, technical performances and use (e.g. identical declared/functional units); have equivalent system boundaries and descriptions of data; apply equivalent data quality requirements, methods of data collection, and allocation methods; apply identical cut-off rules and impact assessment methods (including the same version of characterization factors); have equivalent content declarations; and be valid at the time of comparison.



National Paints is a third-generation business built on a family entrepreneurial vision to offer the highest quality coats and paints for the decorative and industrial sectors. Founded by the Sayegh family in 1969, in Jordan, National Paints has since accelerated its growth by opening factories in Abu Dhabi, Egypt, Romania, Oman, India, and Saudi Arabia. Our factory in Sharjah, United Arab Emirates, which opened in 1977, is the largest in the region contributing to our annual production of 500,000 tons of paint.

We operate in 8 business divisions: Decorative, Automotive, Marine & Yacht coating, Powder Coating, Protective Coating, Floor coating, Wood Coating, and Construction Chemicals. National Paints is currently one of the largest paint consortiums in the Middle East and ranks 16th among the top 50 coating companies in EMEA.

We always keep an eye on the latest trends and put our commitment to innovation and sustainability as a priority. This has led us to increase our investment in research and development, develop solutions to reduce health and environmental risks, and provide exceptional service to our customers.



Product-related or management system-related certifications:

The following certifications are recognized under product-related or management system-related certifications:



















National Paints Commitment to Sustainability

National Paints is committed to sustainable practices through both backward and forward integration in its manufacturing processes. Our core sustainability initiatives include:

- Responsible Sourcing: Procuring raw materials from the nearest sources to minimize transportation impact and reduce emissions and using biogenic packaging and raw materials when available.
- Waste Reduction: Utilizing recycled materials and optimizing waste management to lower environmental impact and carbon footprint.

Name and location of production site(s): National Paints, Industrial Area 13, Sharjah (UAE)



National Guard Epoxy Flooring Topcoat

National Guard Epoxy Flooring Topcoat is a high-performance, two-pack, solvent-based epoxy floor coating designed to provide excellent protection and long-lasting durability for concrete substrates. It is ideal for use in a variety of flooring applications such as manufacturing areas, assembly lines, workshops, and industrial facilities. The coating offers superior resistance to wear, abrasion, and a wide range of chemical solutions, ensuring a tough, low-maintenance, and visually appealing finish that enhances both the performance and lifespan of concrete floors.

Technical features at a glance

- Color & Appearance
- Specific Gravity
- Volume Solids (ASTM D2697)
- Wet Film Thickness (WFT)
- Dry Film Thickness (DFT)
- Theoretical Spreading Rate
- Mixing Ratio

As per National Paints Shade Card 1.4±0.02 55±2%

55±2%

90-180 microns/coat

50-100 microns/coat

11-5.5 m2/liter

By volume, Base to Hardener 4:1

Advantages and Intended use

- Durable, low maintenance
- Provides good resistance to a wide range of chemical solution
- · Wear and abrasion resistance

Surface Preparation • All concrete surfaces must be sound and clean, free from oil, grease, dust, other contaminants and suitably primed. • Surface moisture content should be less than 5%. • Concrete floor should be older than 28 days.

Thinner/Cleaner: National Epoxy Thinner

Performance and Certifications

- This product complies with local regulatory standards for VOC.
- Other certificates are available upon request.



Finish
Glossy, Semi glossy and Matt









Application Tools
Brush or Roller



Declared Unit:

The Declared Unit of the Life Cycle Assessments is one kilogram of National Guard Epoxy Flooring Topcoat plus the proportional part of packaging. All direct and indirect environmental impacts, as well as the use of resources, are reported referred to this unit. This EPD presents the environmental impacts associated to the LCA of the analysed products.

Time Representativeness: January 2024 to December 2024

Database(s) and LCA software used:

Version 3.20.0.2 of software Air.e LCA™ with Ecoinvent™ 3.11.0 database has been used for LCA modeling and impacts calculations. EN15804 system model is used in this LCA.

Electricity usage in A3:

A specific dataset with the Life Cycle Inventory (LCI) corresponding to the electricity mix in United Arab Emirates, has been used for this LCA. 0.6279 kg CO2eg/kWh (GWP-GHG),

Cut-off rules:

More than 99% of the materials and energy consumption have been included. The Polluter Pays Principle and the Modularity Principle have been followed.

Allocation method:

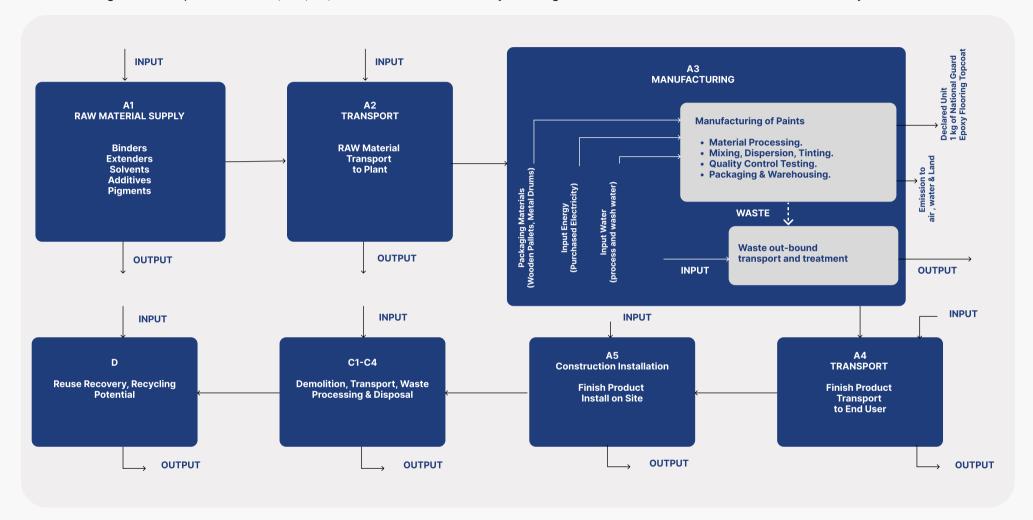
The allocation of common inputs and outputs follows the general allocation rule, which represents the proportion of each specific product's production relative to the total production, expressed in kilograms. Generic process data for the production of input materials were utilized.

Declared Unit Conversion:

Name	Value	Unit
DU	1	Kg
Conversion factor / m2	7.29	meter square (approx)

Description of system boundaries:

Cradle to gate with options (A1-A3, A4,A5,C1-C4 and D). The life cycle stages B1-B7 were excluded from the LCA study.



The Life Cycle Assessment (LCA) results and associated environmental impacts presented in this document reflect the total production of paint products. These results encompass all formulations and production volumes, capturing the full environmental footprint of the paint manufacturing process. Paint is a liquid or mastic material composed of binders, pigments, solvents, and additives, designed to form a protective or decorative coating upon application and drying. The LCA considers the standard raw materials, manufacturing techniques, and performance characteristics that define the overall environmental profile of the paint production process.

System boundaries

This EPD covers all product stages from "cradle to gate with options," meaning this LCA includes Production stage A1-A3, Transportation A4, Installation A5, End-of-life stages C1-C4, and Resource recovery stage D in accordance with EN 15804 + A2/AC:2021.

The system boundaries of this environmental study encompass not only the processes controlled by National Paints but also include upstream and downstream activities, such as fuel extraction, material production, and electricity generation, which are not directly managed by the company.

All related direct and indirect environmental impacts associated with these elements have been calculated and are included in the LCAs within this EPD.

Possible scopes of the LCA defined in the European standard EN 15804:2012+A2:2019 are:

	Produ	ct Stage	Э	Construction Process Stage		Use Stage	End	of life	stage		Resource recovery stage
	Raw material supply	Transport	Manufacturing	Transport	Construction installation	Use, maintenance, repair, replacement, refurbishment, operational energy and water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse-Recovery- Recycling-potential
Module	A1	A2	А3	A4	A5	B1-B7	C1	C2	C3	C4	D
Modules declared	Х	Х	Х	Х	Х	ND	Х	Х	Х	Х	Х
Geography	UAE GLO	UAE GLO	UAE	UAE GLO	UAE GLO		UAE GLO	UAE GLO	UAE GLO	UAE GLO	UAE GLO

^{*} X - Included

Core Processes

A1-Raw Material Supply: This stage covers the extraction, processing, and upstream transport of raw materials used in paint production, including binders, pigments, solvents, and additives. It accounts for the environmental impacts associated with sourcing and preparing these materials prior to their arrival at the manufacturing facility.

A2 - Transport: Transport is relevant for delivery of raw materials and other materials to the plant and the transport of materials within the plant. Transport of raw materials to production site is taken as the weight average values for transport from supplier for the year of 2024.

- Vehicle used for transport 3.5-7.5t & >32t trucks, Euro 5
- Vehicle capacity 3.5 -7.5 tons and 25 tons
- Fuel type and consumption Diesel, 0.38 litres per km
- Capacity utilization (including empty poly cartages) 50% as assumed in Ecoinvent
- Bulk transportation Mass of the transported product.
- A3 Manufacturing: The manufacturing processes include the preparation of raw materials, pre-mixing, dispersion, tinting, quality inspection, filtration, filling, packaging, and storage. These operations are powered by electricity sourced from the UAE grid mix (Ecoinvent 3.11.0, Medium Voltage). Material loss during the manufacturing process is considered negligible and therefore excluded from the assessment.
- **A4 Transport:** This stage involves the transportation of products to the construction site/customer locations via road and sea transport.
- **A5 Installation:** This stage includes the transport and end-of-life treatment of packaging materials, such as the disposal or recycling of wooden pallets and metal cans. VOC emissions and paint dilution during application are considered in this assessment, as the product is solvent-based.
- C1 De-Construction/demolition: A1-Raw Material Supply: This stage involves the removal of paint coatings at the end of the building or product's life. Due to the minimal impact and effort required to remove water-based paints, environmental loads associated with this stage are considered negligible.
- **C2 Waste Transport:** This stage assumes that the entire waste paint is transported to a nearby waste treatment facility using a Euro 6 truck. The average distance to the facility is considered to be 50 km.
- **C3 Waste Processing:** This Stage assumes that none of the produced paint is passed on to waste processing. Hence, the environmental impact of this module is set to be zero.
- **C4 Disposal:** In this stage, paint waste, typically collected along with the substrate in construction materials, is processed. Module C4 assumes that 100% of the paint applied to the substrate is transported to a landfill for disposal.
- **D. Benefits and Loads:** Since paint applied to buildings is not considered for recycling, the environmental impacts in module D are negligible. There are no significant benefits or loads from recycling or material recovery for the paint at the end of life.

Content declaration

The following list includes the main components and materials used in the manufacturing and packaging of National Guard Epoxy Flooring Topcoat.

Тороочи	
Material Used	Percentage (%)
Extenders	8-10
Binders	45-50
Solvents	8-12
Pigments	20-30
Additives	4-5
Total	100%

Packaging Material	Weight kg/DU	Weight % (Versus the Product)	Weight biogenic carbon, kg C/kg of packaging material
Metal Drums	4.72E-02	4.72E+00	0.00E+00
Wooden Pallets	2.39E-02	2.39E+00	4.45E-01

Dangerous substances from the candidate list of SVHC for Authorisation:

Dangerous substances from the candidate list of SVHC for Authorisation:	EC No.	CAS No.	Weight (%) per declared unit
None			
None			

Biogenic carbon content:

Biogenic carbon content	Kg C/Declared Unit
Biogenic carbon content in product	0.00E+00 kg C
Biogenic carbon content in accompanying packaging	1.07E-02 kg C



Manufacturing Process:

The manufacturing process for paint typically involves several key stages to ensure product quality and environmental compliance. Raw materials such as pigments, resins, solvents, and additives are first measured and mixed to form a homogeneous blend. Once the desired consistency is achieved, the paint is filtered and adjusted for viscosity, colour, and other performance characteristics. Finally, it is packaged into containers for distribution. Throughout the process, energy and water are consumed, and emissions and waste are managed in accordance with environmental standards, forming a critical part of the Environmental Product Declaration (EPD).



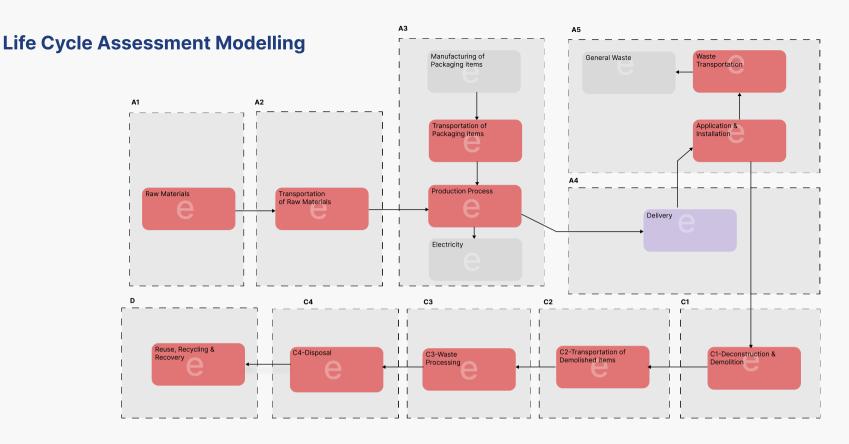
Technical information:

For more technical information about the National Guard Epoxy Flooring Topcoat , please refer to the product TDS, MSDS and Catalogue.

Data quality:

The environmental impact has been calculated based on the international standards established for the development of environmental product declarations, such as ISO14025 for the preparation of the environmental product declaration, ISO 14040 and ISO 14044 for the preparation of the life cycle analysis, UNE-EN 15804:2012+A2:2019 and the Product Category Rules PCR 3100.

Data has been collected in 2024 and is representative of that year. Data for raw material supply, transport to the manufacturing plant and production (A1-A3) is based on specific consumption data for the factory at Sharjah. Generic background datasets were used for the upstream and downstream processes. Air.e LCA Version 3.20.0.2 software was used to prepare the life cycle analysis together with the Ecoinvent 3.11.0 database. Characterization factors from EN 15804:2012+A2:2019.



Environmental Performance

Potential Environmental Impacts

In the following tables, the environmental performance of the declared units "One kilogram of Product (National Guard Epoxy Flooring Topcoat)" is presented for the National Paints. the product totalized and for every sub-phase of the life cycles. During the assessment it was not evident to distinguish the differences in the consumption of electricity, water, diesel, raw material and chemicals during the manufacturing process of the paints. Hence, the calculation is based on total production vs total consumption against production of the product. This EPD values are applicable to specifically paints.

The estimated impact results are only relative statements, which do not indicate the endpoints of the impact categories, exceeding thresholds values, safety margins or risks.

EN 15804+ A2 disclaimers for Abiotic depletion and Water use indicators and all optional indicators except Particulate matter and lonizing radiation, human health. The results of these environmental impact indicators shall be used with care as the uncertainties on these results are high or as there is limited experienced with the indicator.

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Indicator	Unit	A1-A3	A4	A5	B1	B2	ВЗ	B4	B5	В6	В7	C1	C2	C3	C4	D
GWP-Total	kg CO ₂ eq.	4.89E+00	2.26E-01	2.56E-02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.01E-02	0.00E+00	5.25E-01	0.00E+00
GWP-fossil	kg CO ₂ eq.	4.88E+00	2.25E-01	3.05E-03	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.01E-02	0.00E+00	5.25E-01	0.00E+00
GWP-biogenic	kg CO ₂ eq.	1.33E-02	5.06E-05	2.25E-02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.27E-06	0.00E+00	2.09E-04	0.00E+00
GWP-luluc	kg CO₂ eq.	3.91E-03	1.01E-04	1.00E-06	ND	ND	ND	ND	ND	ND	ND	0.00E+00	4.53E-06	0.00E+00	1.16E-04	0.00E+00
ODP	kg CFC 11 eq.	1.46E-07	2,86E-09	2.85E-11	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.28E-10	0.00E+00	3.93E-09	0.00E+00
AP	mol H ⁺ eq.	3.71E-02	7.70E-04	1.23E-05	ND	ND	ND	ND	ND	ND	ND	0.00E+00	3.45E-05	0.00E+00	6.37E-04	0.00E+00
EP-freshwater	kg P eq.	1.40E-03	2.47E-05	1.98E-05	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.11E-06	0.00E+00	3.02E-05	0.00E+00
EP-marine	kg N eq.	5.03E-03	2.45E-04	8.18E-05	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.10E-05	0.00E+00	1.63E-04	0.00E+00
EP-terrestrial	mol N eq.	4.78E-02	2.65E-03	3.46E-05	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.19E-04	0.00E+00	1.72E-03	0.00E+00
POCP	kg NMVOC eq.	2.01E-02	1.04E-03	5.90E-02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	4.68E-05	0.00E+00	6.92E-04	0.00E+00
ADP-minerals & metals*	kg Sb eq.	7.07E-05	7.38E-07	3.99E-09	ND	ND	ND	ND	ND	ND	ND	0.00E+00	3.31E-08	0.00E+00	5.94E-07	0.00E+00
ADP-fossil*	MJ	7.80E+01	3.12E+00	2.83E-02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.40E-01	0.00E+00	2.45E+00	0.00E+00
WDP*	m ³	2.73E+00	1.71E-02	-1.11E-02	ND	ND	ND	ND	NID	NID	NID	0.00E+00	7.68E-04	0.00E+00	3.94E-02	0.00E+00

Acronyms

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 Exceedance; 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 Exceedance; POCP = Formation potential of tropospheric ozone; ADP-minerals&metals = Abiotic depletion potential for non-fossil resources; ADP-fossil = Abiotic depletion for fossil resources potential; WDP = Water (user) deprivation potential, deprivation-weighted water consumption

	Additi	onal mand	atory and	voluntary	imp	act	са	teç	gory	in	dica	tors (Resi	ılts per de	clared unit	:)	
Indicator	Unit	A1-A3	A4	A5	B1	В2	В3	B4	1 B5	Вб	B7	C1	C2	С3	C4	D
GWP-GHG	kg CO ₂ eq.	4.93E+00	2.28E-01	1.09E+00	ND	ND	ND	NE	D ND	NE	ND	0.00E+00	1.02E-02	0.00E+00	5.27E-01	0.00E+00

This indicator includes all greenhouse gases excluding biogenic carbon dioxide uptake and emissions and biogenic carbon stored in the product as defined by IPCC AR 5. This indicator is almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

	Waste indicators (Results per functional or declared unit)															
Indicator	Unit	A1-A3	A4	A5	B1	В2	В3	В4	B5	В6	B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	5.75E-01	7.14E-03	6.44E-05	ND	ND	ND	ND	ND	ND I	ND	0.00E+00	3.20E-04	0.00E+00	1.62E-01	0.00E+00
Non-hazardous waste disposed	kg	1.76E+01	1.37E-01	1.87E-01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	6.16E-03	0.00E+00	2.08E+00	0.00E+00
Radioactive waste disposed	kg	4.62E-05	6.16E-07	7.34E-09	ND	ND	ND	ND	ND	ND	ND	0.00E+00	2.76E-08	0.00E+00	9.85E-07	0.00E+00

	Output flow indicators (Results per declared unit)															
Indicator	Unit	A1-A3	A4	A5	B1	В2	В3	В4	B5	Ве	B7	C1	C2	C3	C4	D
Components for re-use	kg	0.00E+00	0.00E+00	0.00E+00	ND	ND	ND	ND	ND	NE	O ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Material for recycling	kg	4.78E-02	3.52E-05	4.69E-07	ND	ND	ND	ND	ND	NE	D ND	0.00E+00	1.58E-06	0.00E+00	4.47E-05	0.00E+00
Materials for energy recovery	kg	4.35E-05	2.08E-07	1.96E-09	ND	ND	ND	ND	ND	NI) ND	0.00E+00	9.34E-09	0.00E+00	1.28E-07	0.00E+00
Exported energy, electricity	MJ	2.36E-02	2.61E-04	5.56E-06	ND	ND	ND	ND	ND	NI	D ND	0.00E+00	1.17E-05	0.00E+00	5.66E-04	0.00E+00
Exported energy, thermal	MJ	5.66E-02	4.64E-04	3.27E-06	ND	ND	ND	ND	ND	NE	D ND	0.00E+00	2.08E-05	0.00E+00	4.25E-04	0.00E+00

			Resour	ce use in	dica	tor	s (F	≷es	ults	ре	er de	eclared un	it)			
Indicator	Unit	A1-A3	A4	A5	B1	В2	вз	B4	B5	В6	B7	C1	C2	СЗ	C4	D
PERE	MJ	4.30E+00	4.33E-02	-4.15E-01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.94E-03	0.00E+00	6.52E-02	0.00E+00
PERM	MJ	3.40E-01	0.00E+00	4.16E-01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
PERT	MJ	4.64E+00	4.33E-02	4.88E-04	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.94E-03	0.00E+00	6.52E-02	0.00E+00
PENRE	MJ	6.90E+01	3.12E+00	-2.44E-01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.40E-01	0.00E+00	-5.73E+00	0.00E+00
PENRM	MJ	9.01E+00	0.00E+00	2.72E-01	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	8.18E+00	0.00E+00
PENRT	MJ	7.80E+01	3.12E+00	2.83E-02	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.40E-01	0.00E+00	2.45E+00	0.00E+00
SM	kg	8.24E-02	1.37E-03	1.06E-05	ND	ND	ND	ND	ND	ND	ND	0.00E+00	6.16E-05	0.00E+00	3.28E-03	0.00E+00
RSF	MJ	7.91E-02	1.77E-05	1.77E-07	ND	ND	ND	ND	ND	ND	ND	0.00E+00	7.96E-07	0.00E+00	2.41E-05	0.00E+00
NRSF	MJ	1.72E-02	0.00E+00	0.00E+00	ND	ND	ND	ND	ND	ND	ND	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
FW	m ³	6.51E-02	4.18E-04	-2.58E-04	ND	ND	ND	ND	ND	ND	ND	0.00E+00	1.88E-05	0.00E+00	9.48E-04	0.00E+00

Acronyms

PERE = Use of renewable primary energy excluding renewable primary energy resources used as raw materials; PERM = Use of renewable primary energy resources; PENRE = Use of non-renewable primary energy excluding non-renewable primary 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 re-sources; SM = Use of secondary material; RSF = Use of renewable secondary fuels; NRSF = Use of non-renewable secondary fuels; FW = Use of net fresh water



Mandatory Statements

Explanatory material can be obtained from EPD owner and/or LCA author. Contact information can be found below. The owner of the declaration shall be liable for the underlying information and evidence. The LCA Author shall not be liable with respect to manufacturer information, life cycle assessment data and evidences. The verifier and The Environmental Footprint Institute do not make any claim or present any responsibility about the legality of the product. EPDs within the same product category but from different programs may not be comparable.

Contact Information

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Additional information

No additional information is provided.

Information related to Sector EPD

This is not sector EPD.

Differences versus previous versions

This is the first version of the EPD.

References

LCA Report: Life Cycle Inventory of National Guard Epoxy Flooring Topcoat by National Paints Factories Co. Ltd.

Software: Air.e LCA Version 3.20.0.2 www.solidforest.com

Main database: Ecoinvent 3.11.0 www.ecoinvent.org

Geographical scope of the EPD: United Arab Emirates.

ISO 14040:2006 "Environmental management -- life cycle assessment -- principles and framework";

ISO 14044:2006 "Environmental management -- life cycle assessment -- requirements and quidelines";

ISO 14020:2000 "Environmental Labels and declarations - General Principles

ISO 14025:2006 "Environmental labels and declarations -- type III environmental declarations - principles and procedures".

EN 15804+A2:2019/AC:2021 European Committee for Standardization: Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products.



