ENVIRONMENTAL PRODUCT DECLARATION

In accordance with ISO 14025 and EN 15804:2012+A2:2021 :

ENVIRONMENTAL FOOTPRINT INSTITUTE

POLYESTER ARCHITECTURAL

PA 1000 Series

Program:	**The EFI Program**
Programme operator:	**The Environmental Footprint Institute**
EPD Reference number:	**240903EPD CR:P-3100**
Issue date:	**23-September-2024**
Valid until:	**22-september-2029**
Geographical Scope:	Manufactured in Sharjah (UAE) and distributed in UAE and foreign countries.

NATIONAL PAINTS

An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued verification and registration at www.environmentalfootprintinstitute.org

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1.0 PROGRAM INFORMATION

• Program	The EFI Program
• Product Group Classification	UN CPC 3511
• Product Category Rules (PCR)	P-3100: Construction products in general (EN-15804)
• Registration Number	REF:240903EPD CR:P-3100
• Issue Date	23-September-2024
• Validity Date	22-September-2029 An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environmentalfootprintinstitute.org
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2 INTRODUCTION

This report contains the environmental performance of the manufacturing process of **PA 1000 Series** Manufactured by **National Paints Factories Co. Ltd. .** PO Box 5822 , Industrial Area 13, Maleha Road, Sharjah (UAE). This Environmental Product Declaration (EPD) has been developed using the Life Cycle Assessment (LCA) methodology. The environmental impact values calculated are expressed to One-KG of Powder coating.

The assessed life cycle includes all phases in the manufacturing process of powder coatings PA 1000 Series in a “cradle to gate with options” scope. This LCA covers transportation of raw materials, production, distribution of final product to the customer and end of life stages.

This EPD has been conducted according to the program operator regulations and it has been verified in accordance with The Environmental Footprint Institute. The EPD regulation is a system for the international use of Type III Environmental Declarations, according to ISO 14025:2006. Not only the system, but also its applications, is described in the Programmer’s Product Category Rules (PCR). This report has been made following the specifications given in the European standard EN 15804:2012+A2:2019/AC:2021.

3.0 COMPANY INFORMATION

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.

Certifications & Product Approvals

National Paint's Powder Coating segment has done numerous achievements in recent years with introduction of new technologies in architectural and functional coatings for pipe and rebar industries. The architectural powders backed with Qualicoat approvals of Class-1 and Class-2 available in variety of colors and gloss levels. National Paint's powder business increasing rapidly, leading us to transform the structure of our manufacturing capabilities. It includes setting up of new site for FBE manufacturing in Abu Dhabi along with starting operation of powder manufacturing in KSA compliance with high quality standards. National Paints Powder Coating has been upgraded with latest machinery and well equipped research lab. Highly experienced, dedicated, and hardworking R&D professionals is a key of our success. These New advancements in National Paint's Powder coating technology have enabled the availabilities of improved range of powder coating materials to fulfill the market requirements. The new technologies have increased the product portfolio to compete in the region. Very soon, National Paints targeting to be recognized globally as a leading and sustainable manufacturer of powder coatings products.

Sustainable Practices

National Paints Factories Co. Ltd. is committed to green and sustainable practices by using backward and forward integration into its manufacturing processes:

- Sourcing of raw materials from the closest source to reduce the impact on transportation;
- Using recycled materials and minimizing waste which further helps reduce environmental impact and carbon footprint;
- Manufacturing own resin and packing materials.

4.0 PRODUCT INFORMATION

4.1 Analyzed Product

National Paints PA1000 Series is an architectural powder coating. It is mainly developed to fulfil exterior durability requirements with attractive decorative finishes combined with optimum protective properties. PA1000 series offer excellent gloss retention and resistance to color change properties.

PA1000 Series is available in a variety of colors as per RAL Card, custom made shades in glossy, semi-gloss, and matt finishes. Other patterns like sandy finish, course textures, and metallic finishes are also available. NP PA1000 Series is available in following categories. The products are packaged in 20 kg cardboard boxes.

PA 1000 Series is available in following categories.

- PA1008 (Glossy Finish)
- PA1007 (Semi-glossy)
- PA1003 (Matt Finish)
- PA1001 (Sandy Finish)

KEY FEATURES:

- National Paints PA Series is designed for Architectural Coatings
- PA Series meets Qualicoat Class-1 requirement with Cat 1, 2 & 3 Approvals.
- It is backed with 10 years product warranty for exterior durability (terms & conditions)
- PA Series offers excellent UV resistance for exterior application & Good heat resistance.
- Excellent adhesion, humidity resistance and water immersion resistance
- Outstanding corrosion protection and UV durability
- Environmentally friendly

4.2 Technical Specification

POWDER CHARACTERISTIC:

• Chemistry	Polyester Architectural
• Particle size	Suitable for electrostatic spraying
• Specific gravity	1.20 - 1.60
• Curing schedule	200 ˚C / 10Min & 180 ˚C / 15Min (metal temp.)
• Storage	Dry ventilation conditions below 25˚C
• Shelf life	12 months

4.3 Product Applications

PA1000 Series is recommended for Exterior applications. It's available in variety of colors, finishes and gloss levels. Typical application areas are Aluminum Industry, Electric Panel Boards, Air conditioner cabinets, Garden Furniture, Architectural items, Light Fixtures etc.

Note: The above values are ranges of the all products. Refer below Technical data sheet for each product technical specifications.

5.0 LCA INFORMATION

This EPD is intended for diverse applications, including industry databases, publications, and communication within the business-to-business (B2B) landscape. Specifically designed for the environmental assessment of buildings, EPDs allow stakeholders to access crucial information regarding a product's environmental performance. This tailored design facilitates B2B communication, enabling companies to make environmentally conscious decisions when selecting materials and components for construction projects. The primary target audience for EPDs is both business-to-business (B2B) interactions, where companies can exchange and evaluate environmental information, and business-to-consumer (B2C) scenarios, where end-users can make informed, sustainable choices based on the disclosed environmental impact of products.

5.1 Declared Unit

The Declared Unit of the Life Cycle Assessments is One KG of powder coating paints 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 analyzed products

5.2 Time Representativeness

Manufacturing facility specific data from National Paints Factories Co. Ltd. are based on 1 year average for process data (Reference year January to December 2023). The following rules for time scope of data were applied - < 10 years for background data and < 2 years for manufacturer's data.

5.3 LCA Software and Database

Version 3.17.4.0 of software Air.e LCA™ with Ecoinvent™ 3.10.0 database has been used for LCA modeling and impacts calculations. EN15804 system model is used in this LCA.

5.4 System Boundaries

This EPD covers all product stages from “cradle to gate with options”, i.e this LCA covers Production stage A1-A3, Transportation A4, Application of Paints A5, End of life stages C1-C4 and Resource recovery stage D according to EN 15804 + A2/AC:2021.

The system boundaries of this environmental study encompass not only the company-controlled processes 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 related to these elements have been calculated and were included in the LCAs in this EPD. Stages B1,B2,B3,B4,B5,B6 and B7 are not included in this EPD.

Upstream Processes (A1: Raw Material Supply): This stage starts with the production and transportation of raw materials, which are sourced from various locations globally as well as locally. The 'Raw Material Supply' encompasses the extraction and provision of these materials prior to the production phase.

5.0 LCA INFORMATION

Core Processes (A2: Transportation, A3: Manufacturing and A4: Transport, A5 Application): Transport is relevant for delivery of raw materials to the plant and the transport of materials within the plant. Electricity is consumed in the production process. Paints are distributed to customer's places. Paint production starts with receipt of raw materials, mixing, extrusion, tinting, grinding, quality inspection, filtration, filling & packaging and transport to warehouse. To create a scenario of the A4 phase, all the paints sold from January – December 2023 has been analyzed as representative of the international transport. The transport means 3.5-7.5t & >32t trucks, Euro 5. While Stage A5, the VOC and dilution of Paints are not applicable whereas the transportation and disposal/recycle of the wooden pallets and LDPE Bags wastes are included.

Scenario Details	Description
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 liters per km
Capacity utilization (including empty drums)	50% as assumed in Ecoinvent
Bulk transportation	Mass of the transported product.

Module C1: Calculations for paints are done based on dried/cured paint. As a result of the drying and curing processes that take place in modules A5 and B2, there are no solvents or water in the coating mass. Since the coating is not removed from the substrate, the environmental impact of module C1 can be taken as zero.

Module C2: Module C2 assumes that the entire waste paint is transported to a nearby waste treatment facility in a Euro 6 truck. Distance to a nearby waste treatment facility can be averaged at 50 kms.

Module C3: Module C3 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.

Module C4 Disposal - Paint waste is usually collected as part of the substrate in construction materials. Hence, module C4 assumes that 100% of the paint that is applied to the substrate is transported to a landfill.

Scenario Details	Description
Collection Process by type	1 ton of collected product mixed with construction waste
Recovery	100% of the paints that is applied to the substrate is transported to a recycling facility.

Module D Reuse, Recycling & Recovery Potential - Paint applied on buildings and Structures is not considered to be recycled, hence the environmental impacts of module D are negligible.

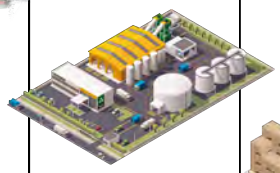
5.0 LCA INFORMATION

5.5 MANUFACTURING FLOW AND SYSTEM BOUNDARIES DIAGRAM

The scope of this EPD is "cradle to gate with options".
Possible scopes of the LCA defined in the European standard EN 15804:2012+A2:2019/AC:2021 are :

	Production Stage			Construction Stage		Use Stage							End of Life Stage				Resourse Recovery Stage
	Raw Materials	Transport	Manufacturing	Transport	Construction Installation	Use Stage	Maintenance	Repair	Replacement	Refurbishment	Operational Energy Use	Operational Water Use	Deconstruction & Demolition	Transport	Waste Processing	Disposal	Reuse Recovery Recycling Potential
Module	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Module Declared	X	X	X	X	X	ND	ND	ND	ND	ND	ND	ND	X	X	X	X	X
Geography	UAE GLO	UAE GLO	UAE	UAE	UAE	-	-	-	-	-	-	-	GLO	GLO	GLO	GLO	GLO
Specific Data	GWP>90%				-	-	-	-	-	-	-	-	-	-	-	-	-
Variation Products	GWP<10%				-	-	-	-	-	-	-	-	-	-	-	-	-
Variation Sites	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

5.0 LCA INFORMATION

Scope of this Life Cycle Assessment 'Cradle to Gate with Options'					
A1 Raw Materials Production	A2 Transport raw materials	A3 Manufacture	A4 Distribution	C1-C4 End of use Stage	D Recovering & Recycling
	 			 	
Raw Materials and Chemicals	Transport from supplier by land or sea	Paint Manufacturing	Transport to customers by trucks & Ships	Demolition, transport, disposal.	Reuse, recovery and recycling potential

5.6 Content Declaration

Product Components	%	Post-consumer material, weight-%	Biogenic material, weight-% and kg C/kg
Resins	50-65	0	0
Pigments	15-20	0	0
Additives	15-18	0	0
Fillers	5-10	0	0

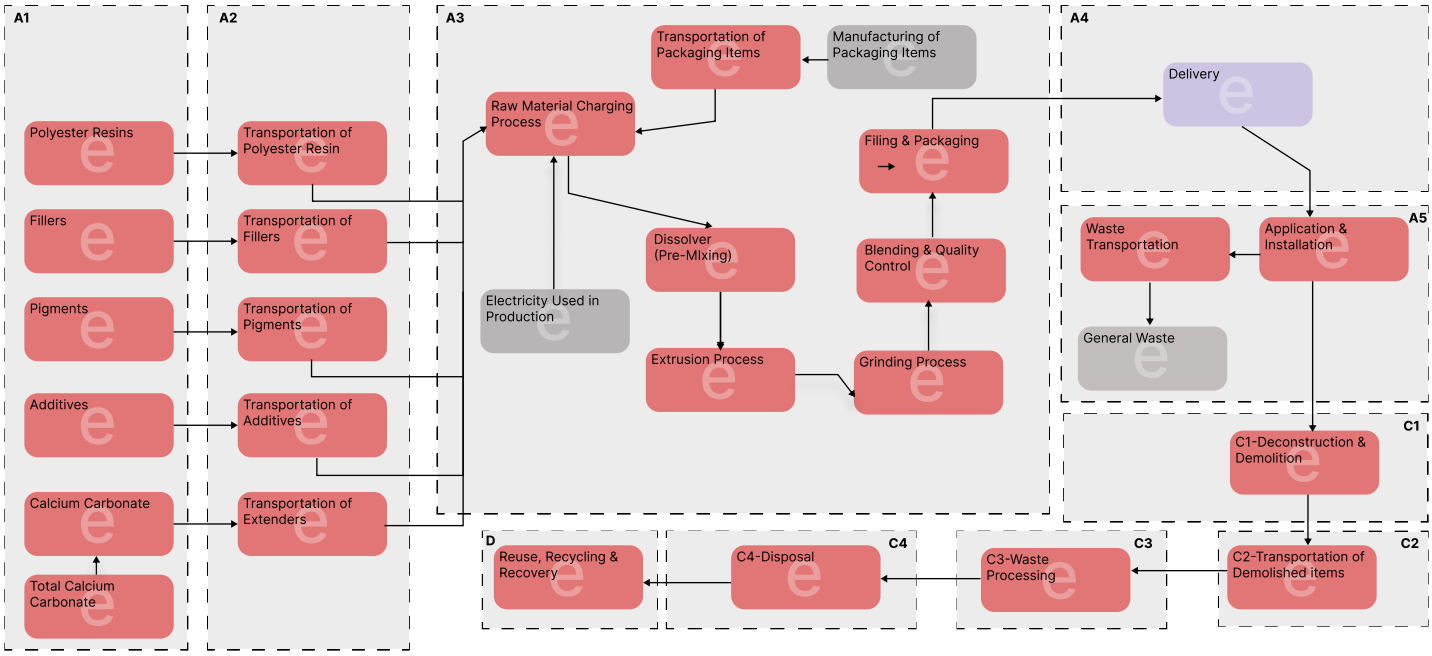
Packaging Materials			
Packaging Materials	Weight Kg per DU	Weight % (Versus the Product)	Weight biogenic carbon, kg C/kg
Wooden Pallet	2.50E-02	2.50%	1.11E-02
LDPE Bags	6.50E-03	0.65%	0
Cardboard box	4.25E-02	4.25%	1.56E-02

5.7 Substance listed in the "Candidate List of SVHC"

During the life cycle of the product no hazardous substance listed in the "Candidate List of Substances of Very High Concern (SVHC) for authorization" has been used in a percentage higher than 0.1% of the weight of the product.

5.0 LCA INFORMATION

5.8 Life Cycle Assessment Modeling



5.9 More information

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.

Allocations: The allocation of common inputs and outputs is based on the general allocation rule what represents the proportion of production of every specific product in overall production expressed in kg. Generic process data for production of input materials were used.

Electricity: A specific dataset with the Life Cycle Inventory (LCI) corresponding to the electricity mix in United Arab Emirates, has been used for this LCA.

Source : 2020: IEA World Energy Statistics and Balances, United Arab Emirates, Total primary energy supply, 2020

Global warming potential (excluding biogenic Carbon) : 0.6279 kg of CO2 eq /kWh (based on Climate Change (fossil) indicator)

Calculation Rules: Datasets from Ecoinvent 3.10.0 with emission factors for raw materials and generic chemicals have been characterized to adjust them to the characteristics of manufacturing of suppliers or counties where suppliers are located. Specific datasets with the emissions factors corresponding to the fuel combustion of production plant and machinery have been developed for these LCAs. Indirect emissions due to diesel production and transportation are also included in the environmental impact. Minor components are not directly related to the product, with less than 1% impact, such as office supplies, has been excluded from the assessment.

5.0 LCA INFORMATION

All transports of components have been included in the LCA considering real distances travelled by materials used for production. It is estimated in a global scale according to Ecoinvent™ criteria. As exact port locations are not known in detail, transport distances have been calculated from a one of the ports in the country of origin to the factory. Operation in port has also been excluded. Road distances calculated using Google Maps. Maritime distances calculated using Marine Traffic Voyage Planner. By Products Assignment There are no By Products in this Environmental Product Declaration. Hence, no allocation had to be applied.

6.0 ENVIRONMENTAL PERFORMANCE

6.1 Potential Environment Impacts

In the following tables, the environmental performance of the declared units "One-KG of Powder Coating PA 1000 " is presented for the National Paints Factories Co. Ltd. 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 powder coating. Hence, the calculation is based on total production vs total consumption against production of the product. This EPD values are applicable to specifically powder coatings.

Powder Coatings
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 Ionizing 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.

Core Environmental Impact Indicators

Impact Category	Unit	A1	A2	A3	A4	A5	B1-B7	C1	C2	C3	C4	Total	D
Climate change (GWP) –fossil	kg CO2e	3.79E+00	6.31E-01	4.85E-01	2.91E-02	2.21E-02	0.00E+00	0.00E+00	7.07E-02	0.00E+00	5.27E-01	5.56E+00	0.00E+00
Climate change (GWP) –biogenic	kg CO2e	7.48E-03	9.52E-05	2.19E-04	4.45E-06	1.51E-04	0.00E+00	0.00E+00	1.08E-05	0.00E+00	2.05E-04	8.16E-03	0.00E+00
Climate change (GWP) –LULUC	kg CO2e	1.92E-03	2.60E-04	1.18E-04	1.15E-05	8.09E-06	0.00E+00	0.00E+00	2.81E-05	0.00E+00	1.02E-04	2.44E-03	0.00E+00
Climate change (GWP) – total	kg CO2e	3.80E+00	6.32E-01	4.85E-01	2.91E-02	2.23E-02	0.00E+00	0.00E+00	7.07E-02	0.00E+00	5.27E-01	5.57E+00	0.00E+00
Ozone depletion	kg CFC-11e	7.39E-08	8.84E-09	1.15E-08	4.06E-10	1.03E-10	0.00E+00	0.00E+00	9.87E-10	0.00E+00	4.00E-09	9.97E-08	0.00E+00
Acidification	mol H+e	2.80E-02	3.99E-03	9.30E-04	9.69E-05	5.96E-05	0.00E+00	0.00E+00	2.36E-04	0.00E+00	6.43E-04	3.40E-02	0.00E+00
Eutrophication, aquatic freshwater	kg Pe	9.87E-04	4.61E-05	3.04E-05	2.28E-06	2.32E-05	0.00E+00	0.00E+00	5.55E-06	0.00E+00	2.91E-05	1.12E-03	0.00E+00
Eutrophication, aquatic marine	kg Ne	3.50E-03	1.14E-03	2.22E-04	3.16E-05	1.99E-05	0.00E+00	0.00E+00	7.69E-05	0.00E+00	1.64E-04	5.15E-03	0.00E+00
Eutrophication, terrestrial	mol Ne	3.32E-02	1.24E-02	2.34E-03	3.41E-04	1.98E-04	0.00E+00	0.00E+00	8.31E-04	0.00E+00	1.73E-03	5.11E-02	0.00E+00
Photochemical ozone formation	kg NMVOCe	1.51E-02	4.18E-03	1.43E-03	1.35E-04	6.20E-05	0.00E+00	0.00E+00	3.28E-04	0.00E+00	6.90E-04	2.20E-02	0.00E+00
Abiotic depletion, minerals & metals	kg Sbe	5.84E-05	1.86E-06	2.65E-06	9.29E-08	4.45E-08	0.00E+00	0.00E+00	2.26E-07	0.00E+00	6.07E-07	6.39E-05	0.00E+00
Abiotic depletion of fossil resources	MJ	6.96E+01	9.20E+00	8.28E+00	4.30E-01	1.25E-01	0.00E+00	0.00E+00	1.05E+00	0.00E+00	2.59E+00	9.13E+01	0.00E+00
Water use	m^3 W.ed	2.00E+00	4.54E-02	5.66E-02	2.22E-03	-2.03E-03	0.00E+00	0.00E+00	5.41E-03	0.00E+00	4.05E-02	2.15E+00	0.00E+00

6.0 ENVIRONMENTAL PERFORMANCE

Additional Environmental Impact Indicators

Impact Category	UNIT	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	Total	D
Particulate matter	Incidence	2.72E-07	1.88E-09	2.43E-09	0.00E+00	0.00E+00	4.56E-09	0.00E+00	7.64E-09	2.89E-07	0.00E+00
ionizing radiation, human	kBq U234e	1.35E-01	3.35E-04	6.20E-05	0.00E+00	0.00E+00	8.15E-04	0.00E+00	3.99E-03	1.41E-01	0.00E+00
Eco-toxicity (freshwater)	CTUe	3.78E+01	1.07E-01	1.38E+00	0.00E+00	0.00E+00	2.61E-01	0.00E+00	1.58E+01	5.53E+01	0.00E+00
Human toxicity, cancer effects	CTUe	4.36E-08	1.51E-10	3.49E-10	0.00E+00	0.00E+00	3.66E-10	0.00E+00	6.01E-10	4.51E-08	0.00E+00
Human toxicity, non-cancer	CTUe	6.31E-08	2.54E-10	1.24E-08	0.00E+00	0.00E+00	6.19E-10	0.00E+00	1.41E-09	7.77E-08	0.00E+00
Land use related impacts/soil	Dimensionless	2.72E+01	2.43E-01	1.28E-01	0.00E+00	0.00E+00	5.91E-01	0.00E+00	1.02E+00	2.92E+01	0.00E+00

EN 15804+A2 disclaimer for Ionizing radiation, human health. 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.

Environmental Impact -GWP-GHG

Impact Category	UNIT	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	Total	D
GEP-GHG	kg CO2e	4.96E+00	2.93E-02	2.25E-02	0.00E+00	0.00E+00	7.14E-02	0.00E+00	5.29E-01	5.61E+00	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 (IPCC 2013) This indicator Is almost equal to the GWP indicator originally defined in EN 15804:2012+A1:2013.

Use of Natural Resources

Impact Category	UNIT	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	Total	D
Renewable PE used as energy	MJ	3.23E+00	5.35E-03	4.33E-03	0.00E+00	0.00E+00	1.30E-02	0.00E+00	6.38E-02	3.32E+00	0.00E+00
Renewable PE used as materials	MJ	7.29E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	7.29E-01	0.00E+00
Total use of renewable PE	MJ	3.96E+00	5.35E-03	4.33E-03	0.00E+00	0.00E+00	1.30E-02	0.00E+00	6.38E-02	4.04E+00	0.00E+00
Non-renew. PE used as energy	MJ	6.70E+01	4.07E-01	-1.57E-01	0.00E+00	0.00E+00	9.92E-01	0.00E+00	-5.72E+00	6.25E+01	0.00E+00
Non-renew. PE used as materials	MJ	1.47E+01	0.00E+00	2.76E-01	0.00E+00	0.00E+00	0.00E+00	0.00E+00	8.18E+00	2.32E+01	0.00E+00
Total use of non-renewable PE	MJ	8.17E+01	4.07E-01	1.19E-01	0.00E+00	0.00E+00	9.92E-01	0.00E+00	2.46E+00	8.57E+01	0.00E+00
Use of secondary materials	Kg	5.44E-02	1.83E-04	3.47E-05	0.00E+00	0.00E+00	4.45E-04	0.00E+00	3.29E-03	5.83E-02	0.00E+00
Use of renewable secondary fuels	MJ	1.53E-02	2.33E-06	6.58E-07	0.00E+00	0.00E+00	5.66E-06	0.00E+00	2.01E-05	1.54E-02	0.00E+00
Use of non-renew. Secondary fuels	MJ	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Use of net fresh water	m3	5.01E-02	5.44E-05	-4.51E-05	0.00E+00	0.00E+00	1.32E-04	0.00E+00	9.75E-04	5.12E-02	0.00E+00

6.0 ENVIRONMENTAL PERFORMANCE

End of Life - waste

Impact Category	UNIT	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	Total	D
Hazardous waste	Kg	4.33E-01	7.14E-04	9.77E-02	0.00E+00	0.00E+00	1.74E-03	0.00E+00	1.62E-01	6.96E-01	0.00E+00
Non-hazardous waste	Kg	1.36E+01	1.34E-02	1.41E-01	0.00E+00	0.00E+00	3.26E-02	0.00E+00	3.33E+00	1.71E+01	0.00E+00
Radioactive waste	Kg	3.34E-05	8.20E-08	4.65E-08	0.00E+00	0.00E+00	2.00E-07	0.00E+00	1.02E-06	3.48E-05	0.00E+00

Note: No radioactive waste is produced during National Paints operation

End of Life - Outflows

Impact Category	UNIT	A1-A3	A4	A5	B1-B7	C1	C2	C3	C4	Total	D
Components for reuse	Kg	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
Materials for recycling	Kg	1.32E-03	3.00E-06	1.38E-06	0.00E+00	0.00E+00	7.31E-06	0.00E+00	2.40E-05	1.36E-03	0.00E+00
Materials for energy recovery	Kg	3.62E-05	2.63E-08	1.46E-08	0.00E+00	0.00E+00	6.40E-08	0.00E+00	1.62E-03	1.66E-03	0.00E+00
Exported energy - electricity	MJ	1.30E-02	2.96E-05	2.30E-05	0.00E+00	0.00E+00	7.21E-05	0.00E+00	5.36E-04	1.36E-02	0.00E+00
Exported energy - thermal	MJ	4.19E-02	5.98E-05	2.37E-05	0.00E+00	0.00E+00	1.46E-04	0.00E+00	4.46E-04	4.25E-02	0.00E+00

6.0 ENVIRONMENTAL PERFORMANCE

Biogenic Carbon Content

Details	Unit	A1-A3
Biogenic carbon content in product	Kg C	0
Biogenic carbon content in accompanying packaging	Kg C	2.67E-02

Note: 1 kg biogenic carbon is equivalent to 44/12 kg CO2. "Reading example: 1.57E-03 = 1.57*10-3 = 0.00157"

Disclaimer: "According to the EN 15804:2012+A2:2019 standard, the LCIA results are relative expressions translating impacts into environmental themes such as climate change, ozone depletion, etc. (midpoint impact categories). Thus, the LCIA results do not predict impacts on category endpoints such as impact on the extinction of species or human health. In addition, the results do not provide information about the exceeding of thresholds, safety margins or risks".

6.2 Interpretation of LCA Study Results

In general terms, as it is shown in the table of core environmental impact indicators, A1-A3 modules have the higher impact, representing above 80% of the whole impact. A4 module has a less impact. C2 and C4 module has little impact too, representing at most 5% and 5% respectively of the whole impact. Finally, Module D represents savings between 10% of the total impact.

7.0 Mandatory Statements

Explanatory material can be obtained from EPD owner and/or LCA author. Contact information can be found below. The verifier and The Program Operator do not make any claim or present any responsibility about the legality of the product.

The EPD owner has the sole ownership, liability, and responsibility for the EPD. The LCA Author shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

EPDs within the same product category but registered in different EPD programmes 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.

8.0 CONTACT INFORMATION

EPD Owner

NATIONAL PAINTS FACTORIES CO. LTD.
Industrial Area 13, Maleha |Road ,Sharjah (U.A.E)
Tel : +971 065130000
mehmood.khan@nationalpaints.com
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LCA Author

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www.nationalpaints.com

Verifier Details

Name : Manuel Rama
Location : Spain
Accredited By :
Environmental Footprint Institute

9.0 ADDITIONAL INFORMATION

9.1 Action against Erosion, Environmental Restoration, and Landscaping of the work.

Application of measures to prevent erosion, restore the environment, and landscape the job includes restoring all elements immediately connected to it. The restoration of other related items indirectly is also suggested, including work roads, auxiliary facilities, and loan and landfill lands.

In the areas of air protection, National Paints Factories Co. Ltd. makes an effort to stop pollution and lessen its damaging effects on the environment management of both waste and water. The foundation of quality and environmental policy is a long-term growth plan built on recognized and global trends that have been expertly evaluated in relation to the development of potential clients' needs.

Instruction for proper use of the product, e.g. To minimize the energy or water consumption or to improve the durability of the product;- Increasing product quality and value without raising production's energy intensity or environmental burdens through ongoing technical advancements and equipment replacement.

9.2 Information on Recycling

All the regulations related to the disposal are followed. Circular Economy Strategy is deployed to ensure the open and close loop recycling is done

9.0 ADDITIONAL INFORMATION

9.3 Information related to Sector EPD

This is not a sector EPD.

9.4 Differences versus previous versions

This is the first version of the EPD.

10.0 References

LCA Report: Life Cycle Inventory of PA 1000 Series by National Paints Factories Co. Ltd.

Software: Air.e LCA Version 3.17.4.0 www.solidforest.com

Main database: Ecoinvent 3.10.+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 guidelines”;

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.

General Programme Instructions of the Environmental Footprint Institute
Product Category Rules: P-3100: Construction products in general (EN-15804)