

ENVIRONMENTAL PRODUCT DECLARATION

in accordance with ISO 14025, ISO 21930 and EN 15804

Owner of the declaration:	Jotun A/S
Program operator:	The Norwegian EPD Foundation
Publisher:	The Norwegian EPD Foundation
Declaration number:	NEPD-2964-1655-EN
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ECO Platform reference number:	-
Issue date:	08.07.2021
Valid to:	08.07.2026

Jotafloor SF PR 150; Jotun Paints Co. L.L.C. (Oman)

Jotun A/S

www.epd-norge.no





Jotafloor SF PR 150



General information

Product:

Jotafloor SF PR 150; Jotun Paints Co. L.L.C. (Oman)

Program operator:

The Norwegian EPD Foundation Pb. 5250 Majorstuen, 0303 Oslo Phone: +47 23 08 80 00 e-mail: post@epd-norge.no

Declaration number:

NEPD-2964-1655-EN

ECO Platform reference number:

This declaration is based on Product Category Rules:

CEN Standard EN 15804:2012+A1:2013 serves as core PCR. IBU PCR Part B for coatings with organic binders

Statement of liability:

The owner of the declaration shall be liable for the underlying information and evidence. EPD Norway shall not be liable with respect to manufacturer information, life cycle assessment data and evidences.

Declared unit:

1 kg Jotafloor SF PR 150; Jotun Paints Co. L.L.C. (Oman)

Declared unit with option:

A1,A2,A3

Functional unit:

Verification:

Independent verification of data, other environmental information and the declaration according to ISO14025:2010, § 8.1.3 and § 8.1.4

External

Third party verifier:

Sign

and Ronnig

Senior Research Scientist, Anne Rønning

(Independent verifier approved by EPD Norway)

Owner of the declaration:

Jotun A/S Contact person: Anne Lill Gade Phone: +47 33 45 70 00 e-mail: anne.lill.gade@jotun.no

Manufacturer:

Jotun Paints Co. L.L.C. (Oman)

Place of production:

Jotun Paints Co. L.L.C. (Oman) Rusayl Ind. Estate, Road (No.6 - extend road) 111 Muscat Oman

Management system:

ISO 9001:2008 Certificate nr: 0044915-00, ISO 14001:2004 Certificate nr 0044914-00, ISO 45001: 2018 Certificate nr: 0098139

Organisation no:

923 248 579

Issue date: 08.07.2021

Valid to: 08.07.2026

Year of study:

2021

Comparability:

EPD of construction products may not be comparable if they not comply with EN 15804 and seen in a building context.

Author of the Life Cycle Assessment:

The declaration is developed using EPD tool lca.tools ver EPD2020.11, developed by LCA.no AS Approval:

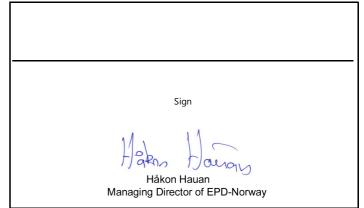
Collected/registered by:

Internal verification by:

Cleo Alves Otterbech

Ken Gudvangen

Approved:





Product

Product description:

Jotafloor SF PR 150 is a two component amine cured solvent free epoxy coating. It ensures very good adhesion on most concrete floors in atmospheric environments only.

The declared product is specially designed for high build floor coatings on properly prepared concrete substrates and a primer for all Jotafloor products. It is specially designed for use with the traffic deck system for heavy duty traffic, areas such as ramps, car parks, parking bays, pedestrian walkways, roof decks and industrial floors.

This product, when used with Jotafloor Non Slip Aggregates, is suitable for filling and repairing of cracks, undulations and surface imperfections.

Product specification

For information on Green Building Standard credits, see "Additional Information" on page 4.

The material composition of the declared mixed product is given below:

Materials	%
Binder	50-75
Additive	10-25
Solvent	10-25
Filler	5-10

Technical data:

This is a two-component product supplied as the base (Comp A) and the hardener (Comp B). Part mixing of these components is still not acceptable and will affect both performance and appearance of the finished floor. Product mixing ratio (by volume):

Jotafloor SF PR 150 Comp A: 3 part(s) Jotafloor SF PR 150 Comp B: 1 part(s)

Density comp A: 1.04 g/cm³ Density comp B: 1.02 g/cm³ Solids by volume: 98 \pm 2 %

Film thickness per coat: Dry film thickness: 150 - 300 µm Wet film thickness: 150 - 300 µm

Theoretical spreading rate: 6.7 - 3.3 m²/l

The most representative and worst case formulation produced at the manufacturing site is chosen for this EPD. For products with a selection of colours, this will be the formulation with the highest content of titanium dioxide.

The product packaging is based on an average sized metal packaging, including secondary packaging such as pallets and plastic wrapping.

For safety, health and environmental conditions, see the Safety Data Sheet for the declared product on www.jotun.com.

For information on technical data, application and use of the product, see the Technical Data Sheet for the declared product on www.jotun.com.

Market:

Allocation:

Global. Transport to market is not included in this EPD.

Reference service life, product

The reference service life of the product is highly dependent on the conditions of use.

The allocation is made in accordance with the provisions of EN 15804.

Incoming energy, water and waste production in-house is primarily allocated equally among all products through mass allocation. Specific allocation was

performed for certain waste flows according to information provided by the

site manager. VOC emissions have been allocated entirely to the production

of solvent based paints. Effects of primary production of recycled materials is

allocated to the main product in which the material was used. The recycling

process and transportation of the material is allocated to this analysis.

Estimated service life, object

The coated object is not declared.

LCA: Calculation rules

Declared unit:

1 kg Jotafloor SF PR 150; Jotun Paints Co. L.L.C. (Oman)

Cut-off criteria:

All major raw materials and essential energy is included. The production process for raw materials and energy flows with very small amounts (less than 0.1 % dry matter) are not included. In total, more than 99% of the material input is included. These cut-off criteria do not apply for non-energy related emissions (such as wastes, hazardous materials and substances).

Data quality:

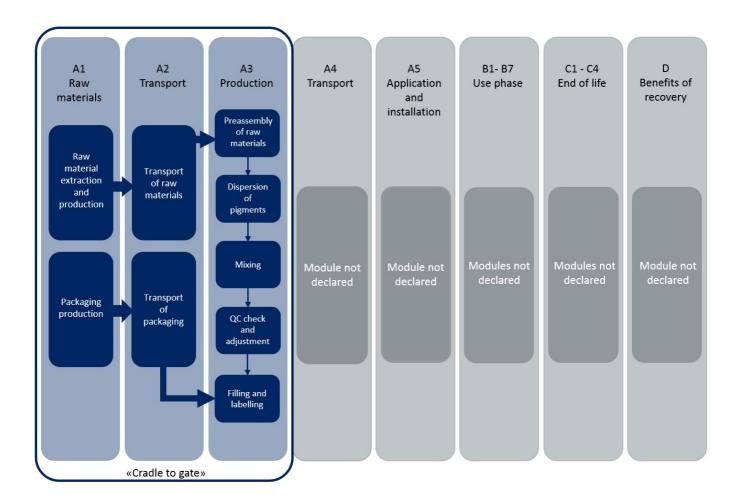
The CEPE database is used as basis for the raw material composition. Specific data for the product composition and raw material amounts has been provided by the manufacturer and represents the production of the declared product. Production site data was collected in 2015. Representative data from ecoinvent v3.2 was used for other processes. The data quality for the material input in A1 is presented in tabular form.

Materials	Source	Data quality	Year
Packaging	Østfoldforskning	Database	2017
Jotafloor SF PR 150 Comp A, Jotun Paints Co. L.L.C. (Oman)	Owner of EPD	Database	2021
Jotafloor SF PR 150 Comp B, Jotun Paints Co. L.L.C. (Oman)	Owner of EPD	Database	2021



System boundary:

The flowchart in the figure below illustrates the system boundaries for the analysis, in accordance with the modular principle on EN 15804. The analysis is a cradle-to-gate (A1-A3) study.



Additional information:

The declared product contributes to Green Building Standard credits by meeting the following specific requirements:

LEED ® v4 (2013)/LEED ® v4.1 (2020)

MR credit: Building product disclosure and optimization

- Material Ingredients, Option 2: Material Ingredient Optimization, International Alternative Compliance Path - REACH optimization: Fully inventoried chemical ingredients to 100 ppm and not containing substances on the REACH Authorization list – Annex XIV, the Restriction list – Annex XVII and the SVHC candidate list.

- Environmental Product Declarations. Product-specific Type III EPD (ISO 14025;21930, EN 15804) for Jotun Paints Co. L.L.C. (Oman).

BREEAM International (2016)

Mat 01: Product-specific Type III EPD (ISO 14025;21930, EN 15804) for Jotun Paints Co. L.L.C. (Oman).

Additional certificates and approvals may be available on request.



LCA: Scenarios and additional technical information

The following information describe the scenarios in the different modules of the EPD. This is a cradle to gate (A1-A3) EPD with no declared modules after the factory gate. Transport from place of production to user (A4) has to be calculated by the user.

Гуре	Capacity utilisation (incl. return) %	Type of vehicle	Distance km	Fuel/Energy consumption	Unit	. 0	Value (I/t)
Truck					l/tkm		
Railway					l/tkm		
Boat					l/tkm		
Other Transr rtation					l/tkm		
Assembly		Use (B1)				
	Unit	Value .				Unit	Value
Auxiliary	kg						
Water consumption	m ³						
Electricity consumption	kWh						
Other energy carriers	MJ						
Material loss	dria						
Output materials from waste treatment	· · · · · · ·						
Dust in the air	qft_						
VOC emissions							
VOC emissions	ho *	'A_					
Maintenance (B2)/Repair (B3)	l Init	A1.4.3	ment (B4)/Ref	urbishment (B5)		lloit	Valu
Maintenance (B2)/Repair (B3)	Unit	A1. Value A3	Pent (B4)/Ref	urbishment (B5)		Unit	Valu
Maintenance (B2)/Repair (B3) Maintenance cycle* Auxiliary	Unit ka	Value Ru.	are Da	urbishment (B5)			Valu
Maintenance (B2)/Repair (B3) Maintenance cycle* Auxiliary Other resources	Unit kg	Value Value	Tent (B4)/Ref	urbishment (B5)		Unit kWh	Valu
Maintenance (B2)/Repair (B3) Maintenance cycle* Auxiliary Other resources Water consumption	Unit kg kg m ³	Value Value	rice not	urbishment (B5)			Valu
Maintenance (B2)/Repair (B3) Maintenance cycle* Auxiliary Other resources Water consumption Electricity consumption	Unit kg kg m ³ kWh	Value Value Electr Repla	ribed above 1	inclua			Valu
Maintenance (B2)/Repair (B3) Maintenance cycle* Auxiliary Other resources Water consumption Electricity consumption Other energy carriers	Unit kg kg m ³ KWh MJ	Value Value Electr Repla	ribed above 1	include			Valu
Maintenance (B2)/Repair (B3) Maintenance cycle* Auxiliary Other resources Water consumption Electricity consumption Other energy carriers Material loss	Unit kg kg m ³ kWh MJ ka	Value Value Electr Repla * Desc	ribed above 1.	included	γ		Valu
Maintenance (B2)/Repair (B3) Maintenance cycle* Auxiliary Other resources Water consumption Electricity consumption Other energy carriers Material loss VOC emissions	Unit . kg kg m ³ kWh MJ kg	Value Value Electri Repla * Dese	rich. Cribed above h	included	y		Valu
	kg m ³ KWh MJ Arios Affe s dffe kg kg kg m ³ kWh MJ kg kg kg kg				γ		Valu
Maintenance (B2)/Repair (B3) Maintenance cycle* Auxiliary Other resources Water consumption Electricity consumption Other energy carriers Material loss VOC emissions Operational energy (B6) and water consu			ribed above I.		y		
	mption (B7)	End of Value		4)	y	kWh	Valu
Operational energy (B6) and water consu Water consumption	mption (B7) Unit	Value . Haza	f Life (C1, C3, C4	4) osed	y	kWh Uns	
Dperational energy (B6) and water consu Water consumption Electricity consumption	mption (B7) Unit m ³	Value . Haza	f Life (C1, C3, C4 dous waste dispo cted as mixed co	4) osed	γ 	kWh Uns kg	
Derational energy (B6) and water consu Water consumption Electricity consumption Other energy carriers	mption (B7) Unit m ³ kWh	Value . Haza	f Life (C1, C3, C4 dous waste dispo cted as mixed co	4) osed	y	KWh Uns kg kg	
Operational energy (B6) and water consu	mption (B7) Unit m ³ kWh MJ	Value . Haza Collec Reuse Recy	f Life (C1, C3, C4 dous waste dispo cted as mixed co	4) osed	γ 	Wh Wh kg kg	

Туре	Capacity utilisation (incl. return) %	Type of vehicle	Distance km	Fuel/Energy consumption	Unit	Value (l
Truck					l/tkm	
Railway					l/tkm	
Boat					l/tkm	
Other Transportation					l/tkm	

l/t)



LCA: Results

System boundaries (X=included, MND=module not declared, MNR=module not relevant)

Pr	oduct sta	age	instal	uction lation ige			ι	Jser stag	e				End of	life stage	•	Beyond the system bondaries
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De- construction demolition	Transport	W aste processing	Disposal	Reuse-Recovery- Recycling- potential
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	. D
Х	Х	Х	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	MND	· MND

Environmental impact

Parameter	Unit	A1-A3			
GWP	kg CO ₂ -eq	8,94E+00			
ODP	kg CFC11 -eq	2,22E-07			
POCP	kg C ₂ H ₄ -eq	2,37E-03			
AP	kg SO ₂ -eq	3,01E-02			
EP	kg PO ₄ ³⁻ -eq	6,02E-03			
ADPM	kg Sb -eq	2,37E-05			
ADPE	MJ	1,28E+02			
GWP Global warming potential: ODP Depletion potential of the stratospher	ic ozone laver. POCP Formation potential of tropospheric photochem	ical oxidants:			

GWP Global warming potential; ODP Depletion potential of the stratospheric ozone layer; POCP Formation potential of tropospheric photochemical oxidants; AP Acidification potential of land and water; EP Eutrophication potential; ADPM Abiotic depletion potential for non fossil resources; ADPE Abiotic depletion potential for fossil resources

"Reading example: 9,0 E-03 = 9,0*10-3 = 0,009" *INA Indicator Not Assessed



Resource use

Parameter	Unit	A1-A3
RPEE	MJ	5,27E+00
RPEM	MJ	5,77E-01
TPE	MJ	5,38E+00
NRPE	MJ	1,37E+02
NRPM	MJ	0,00E+00
TRPE	MJ	1,37E+02
SM	kg	0,00E+00
RSF	MJ	0,00E+00
NRSF	MJ	0,00E+00
W	m ³	4,34E-01

RPEE Renewable primary energy resources used as energy carrier; RPEM Renewable primary energy resources used as raw materials; TPE Total use of renewable primary energy resources; NRPE Non renewable primary energy resources used as energy carrier; NRPM Non renewable primary energy resources used as materials; TRPE Total use of non renewable primary energy resources; SM Use of secondary materials; RSF Use of renewable secondary fuels; W Use of net fresh water

"Reading example: 9,0 E-03 = 9,0*10-3 = 0,009" *INA Indicator Not Assessed

End of life - Waste

Parameter	Unit	A1-A3
HW	kg	4,24E-03
NHW	kg	1,67E+00
RW	kg	INA*
HW Hazardous waste disposed; NHW Non hazardous waste disposed; RW Radioactive waste disposed		
"Reading example: 9,0 E-03 = 9,0*10-3 = 0,009"		
INA Indicator Not Assessed		

End of life - Output flow

Parameter	Unit	A1-A3
CR	kg	0,00E+00
MR	kg	1,28E-03
MER	kg	7,41E-03
EEE	MJ	INA*
ETE	MJ	INA*
CR Components for reuse; MR Materials for recycling; MER Materials for energy recovery; EEE Exported electric energy; ETE Exp	orted thermal energ	ay 🔤
"Reading example: 9,0 E-03 = 9,0*10-3 = 0,009" *INA Indicator Not Assessed		



Additional requirements

Greenhouse gas emissions from the use of electricity in the manufacturing phase

National production mix from import, low voltage (production of transmission lines, in addition to direct emissions and losses in grid) of applied electricity for the manufacturing process (A3).

Electricity mix	Data source	Amount	Unit
Electricity, Oman (kWh)	ecoinvent 3.3 Alloc Rec	1113,82	g CO2-ekv/kWh

Dangerous substances

The product contains no substances given by the REACH Candidate list.

Indoor environment

The declared product is emission tested by RISE Research Institutes of Sweden/SP Technical Research Institute of Sweden or Eurofins in accordance with California Department of Public Health (CDPH) Standard Method v1.2–2017.

Bibliography

ISO 14025:2010 Environmental labels and declarations - Type III environmental declarations - Principles and procedures.
ISO 14044:2006 Environmental management - Life cycle assessment - Requirements and guidelines.
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BREEAM International (2016): BREEAM International New Construction Technical Manual. SD233-2.0:2017.

CDPH method 1.2 (2017): Standard method for the testing and evaluation of volatile organic chemical emissions from indoor sources. California Department of Public Health. LEED® v4.1 (2020): LEED® v4.1 for Building design and construction, U.S. Green Building Council®.

LEED® v4 (2013): LEED® v4 for Building design and construction, U.S. Green Building Council®.

REACH (2006): Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006. REACH Authorization list – Annex XIV, the Restriction list – Annex XVII and the SVHC candidate list.

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