

ENVIRONMENTAL PRODUCT DECLARATION

in accordance with ISO 14025, ISO 21930 and EN 15804

Eier av deklarasjonen:

Program operatør:

Utgiver:

Deklarasjon nummer:

Publiserings nummer:

ECO Platform registreringsnummer:

Godkjent dato:

Gyldig til:

Taktila AS

The Norwegian EPD Foundation The Norwegian EPD Foundation

NEPD-3101-1760-EN

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16.09.2021

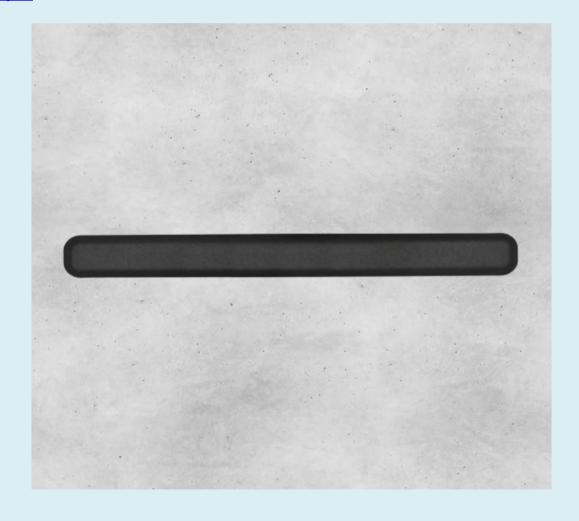
16.09.2026

Taktila 280 mm

Taktila AS

www.epd-norge.no







General information	
Product:	Owner of the declaration: Taktila AS
Taktila 280 mm	Contact person: Øyvind Haugan
	Phone: (+47) 40 555 001
	e-mail: oyvind@taktila.no
	oyvina@taktiia.no
Program operator:	Manufacturer:
The Norwegian EPD Foundation	Taktila AS
Post Box 5250 Majorstuen, 0303 Oslo, Norway	Taktila AS, Teglgata 5, 7502 Stjørdal
Phone: (+47) 23 08 80 00	Norway
e-mail: <u>post@epd-norge.no</u>	
Declaration number:	Place of production:
NEPD-3101-1760-EN	Leksvik/Stjørdal
THE B OTOT THOSE EN	Lendving organizati
CO Blatform reference mumber.	May a remant a ratem.
ECO Platform reference number:	Management system: N/A
	IV/A
This declaration is based on Product Category Rules:	Organisation no:
CEN Standard EN 15804 serves as core PCR	917324239
Statement of liability:	Issue date:
The owner of the declaration shall be liable for the underlying	16.09.2021
information and evidence. EPD Norway shall not be liable with respect	
to manufacturerinformation, life cycle assessment data and evidences.	
	Valid to
	Valid to 16.09.2026
	10.09.2020
Declared unit:	Year of study:
	Consumption data is based on production in 2020. LCA was
	performed in 2021.
Declared unit with option: (A1-A5)	Comparability:
1 pc Taktila 280 mm	EPD of construction products may not be comparable if they not
	comply with EN 15804 and seen in a building context.
Functional unit:	
1 tactile element used to mark elevators, stairs or other, installed in a	Vidar L. Yttersian, Asplan Viak AS
building	
	\/y/\ asplan
	asplan viak
M. W. J.	VIGK
Verification:	,
The CEN Norm EN 15804 serves as the core PCR. Independent verification of the declaration and data, according to ISO14025:2010	
Verification of the declaration and data, according to 13014023.2010	
internal	
☐ internal ☑ eksternt	Approved
Third party verifier:	- Approved
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July Will Skillstad	11 griss 1 Jangy
	Håkon Hauan
Independent verifier approved by EPD Norway	Managing Director of EPD-Norway



Product

Product description:

Taktila 280 mm is an oblong tactile element used to mark stairs, elevators, or as guidelines between important functions in buildings. It consists of a mixture of recycled plastic and fiberglass.

The product is sold in Norway, but can also be sold worldwide.

Product specification:

Taktila 280 mm weighs 25,6 grams finished with tape. The material composition of the declared unit is given in the table below.

Materials	Gram	%
Recycled plastic PA6 plastic with 15 % glass fiber	19,6	76,6 %
Color	1,0	3,9 %
Tape 3M two-sided	5,0	19,5 %
SUM	25,6	100,0 %

Technical data:

A taktila 280 mm is 280 mm long, 30 mm wide and 3,6 mm high.

Available in colour NCS 3000, NCS 8000 and NCS 9000.

For additional information, see:

https://butikk.taktila.no/produkt/lange-enkeltelementer/

Market:

Norway/The Nordic region

Reference service life, product:

Not relevant



LCA: Calculation rules

Declared unit:

1 pc Taktila 280 mm

System boundary:

Modules are declared in accordance with EN 15804. Declared units include A1-A3, A4 and A5, as shown in Figure 1.

Gray boxes describe modules that have not been declared.

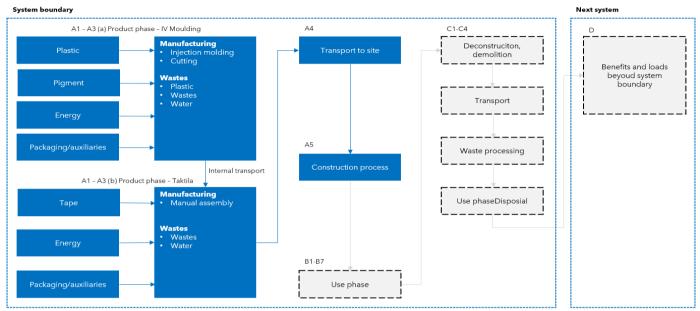


Figure 1: System boundaries. EoL: Waste management

Data quality:

General requirements and guidance related to the use of generic and specific data and the quality of these are described in EN 15804: 2012+A1:2013, clauses 6.36 and 6.37., Including ISO 14044: 2006, 4.2.3.6. The data base is representative in terms of temporal, geographical and technological requirements. Database used for modeling is ecoinvent v. 3.6, Allocation, Cut-Off by Classification (2018), and Agri-Footprint. Upstream data is obtained from the manufacturer. Calculations are performed in SimaPro v 9.1.1.1. Classification factors from EN 15804: 2012+A1: 2013 have been used.

Temporal:

Data for module A3 has been handed over by the EPD owner and consists of consumption data and calculated quantities of specific material and energy consumption. Data have been collected for the year 2020. Generic data has been prepared or updated within the last 10 years. Any exceptions are described in the LCA report.

Geographical

The product included in the EPD is manufactured in Norway and is representative of the Norwegian market. Best available approaches are used where specific data for Norway is unavailable.

Technology:

Data represents the technology in use.

Allocation

Allocation is made in accordance with the provisions of EN 15804. Incoming energy and water, as well as production of waste in own production are allocated equally between all products through mass allocation.

Cut-off criteria:

All important raw materials and all important energy use are included. The production process for the raw materials and energy streams that are included with very small quantities (<1%) is not included, according to NS 15804. These cut-off criteria do not apply to hazardous materials and substances. Cut-off criteria also follow the EPD-Norway GPI.

Benefits and loads beyond the system boundary (module D)

Module D is not declared in this EPD.



LCA: Scenarios and additional technical information

Transport, module A4, is included as a scenario in the analysis. All numbers are per declared unit. Module A5, assembly, is also included. Installation is done by hand, and thus has no energy consumption and thus no emissions.

Transport from production place to user (A4)

Туре	Capacity utilisation (incl. return) %	Type of vehicle	Distance km	Fuel/Energy con	sumption
Truck	28 %	Euro 6	300	0,1305 l/tkm	39,143 l/t

Assembly (A5)

	Unit	Value
Auxiliary	kg	0,0
Water consumption	m³	0,0
Electricity consumption	kWh	0,0
Other energy carriers	MJ	0,0
Material loss	kg	0,0
Output materials from waste treatment	kg	0,0
Dust in the air	kg	0,0



LCA: Results

The results for environmental impact in the different modules are presented below. Declared unit is per 1 pc Taktila 280 mm

System boundaries (X=included, MND= module not declared, MNR=module not relevant) Beyond the End of life stage Product stage Assemby stage Use stage system boundaries Reuse-Recovery-Recycling-potential De-construction demolition Operational water use Waste processing Refurbishment Operational energy Manufacturing Raw materials Replacement Maintenance Transport Transport Transport Assembly Repair Use D Α1 A2 А3 Α4 A5 В1 B2 ВЗ В4 В5 В6 В7 C1 C2 СЗ C4 Χ Χ Χ Χ Χ MND MND

Environmental impact

Parameter	Unit	A1-A3	A4	A5
GWP	kg CO2 - ekv.	4,02E-02	3,90E-03	0,00E+00
ODP	kg CFC11- ekv.	3,89E-09	8,45E-10	0,00E+00
POCP	kg C2H4 - ekv.	3,01E-05	5,24E-07	0,00E+00
AP	kg SO2 - ekv.	2,43E-04	9,55E-06	0,00E+00
EP	kg PO43 ekv	1,56E-03	1,15E-06	0,00E+00
ADPM	kg Sb - ekv	8,44E-07	1,94E-07	0,00E+00
ADPE	MJ	3,80E-01	5,84E-02	0,00E+00

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



Resource use

Parameter	Unit	A1-A3	A4	A5
RPEE	MJ	7,59E-01	1,25E-03	0,00E+00
RPEM	MJ	0,00E+00	0,00E+00	0,00E+00
TPE	MJ	8,31E-01	1,25E-03	0,00E+00
NRPE	MJ	5,92E-01	5,84E-02	0,00E+00
NRPM	MJ	1,45E-01	0,00E+00	0,00E+00
TRPE	MJ	7,36E-01	5,84E-02	0,00E+00
SM	kg	2,05E-02	0,00E+00	0,00E+00
RSF	MJ	0,00E+00	0,00E+00	0,00E+00
NRSF	MJ	0,00E+00	0,00E+00	0,00E+00
W	m3	6,06E-01	8,28E-06	0,00E+00

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; NRSF Use of non renewable secondary fuels; W Use of net fresh water

End of life - Waste

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Parameter	Unit	A1-A3	A4	A5	
HW	kg	3,57E-04	3,66E-06	0,00E+00	
NHW	kg	1,25E-02	1,77E-03	0,00E+00	
RW	kg	9,49E-06	3,88E-07	0,00E+00	

HW Hazardous waste disposed; NHW Non hazardous waste disposed; RW Radioactive waste disposed

End of life - Output flow

Parameter	Unit	A1-A3	A4	A5
CR	kg	kg 0,00E+00 0,00E+00		0,00E+00
MR	kg	1,77E-03	0,00E+00	0,00E+00
MER	kg	1,03E-03	0,00E+00	0,00E+00
EEE	MJ	0,00E+00	0,00E+00	0,00E+00
ETE	MJ	0,00E+00	0,00E+00	0,00E+00

CR Components for reuse; MR Materials for recycling; MER Materials for energy recovery; EEE Exported electric energy; ETE Exported thermal energy

Reading example: $9.0 E-03 = 9.0*10^{-3} = 0.009$



Additional Norwegian requirements

Greenhous gas emission from the use of electricity in the manufacturing phase

Production Norway: National market mix with imports of high voltage/low voltage, including production of transmission lines and grid losses, is used for electricity in the production process (A3). High voltage is used at IV Molding's factory and low voltage at Taktila's premises.

Data source	Amount	Unit
Ecoinvent v3.6, high voltage electricity	0,0169	kg CO ₂ -ekv/kWh
Ecoinvent v3.6, low voltage electricity	0,0233	kg CO ₂ -ekv/kWh

Dang	erous substances
4	The product contains no substances given by the REACH Candidate list or the Norwegian priority list
	The product contains substances given by the REACH Candidate list or the Norwegian priority list that are less than 0,1 % by weight.
	The product contain dangerous substances, more then 0,1% by weight, given by the REACH Candidate List or the Norwegian Priority list, see table.
	The product contains no substances given by the REACH Candidate list or the Norwegian priority list. The product is classified as hazardous waste (Avfallsforskiften, Annex III), see table.

Indoor environment

No tests have been carried out on the product concerning indoor climate.

Climate declaration - biogenic carbon

Climate footprints from biogenic carbon uptake have not been calculated for this product.



Bibliography

NS-EN ISO 14025:2010 Environmental labels and declarations - Type III environmental declarations - Principles and

procedures

NS-EN ISO 14044:2006 Environmental management - Life cycle assessment - Requirements and guidelines

NS-EN 15804:2012+A1:2013 Sustainability of construction works - Environmental product declaration - Core rules for the

product category of construction products

ISO 21930:2007 Sustainability in building construction - Environmental declaration of building products

Yttersian, V.Y. (2021) LCA_report_Tactile elements. LCA-rapport nr. 632284-12 fra Asplan Viak AS

NPCR Part A:2017 PCR-Part A: Construction products and services, version 1.0

Ecoinvent v. 3.6 Swiss Centre of Life Cycle Inventories

SimaPro, v 9.1.1.1 LCA software, developed by PRé Sustainability, www.simapro.com

Klimaregnskap for avfallshåndtering. Fase I og II: Glassemballasje, metalemballasje, papir, papp, plastemballasje, våtorganisk avfall, treavfall og restavfall fra husholdninger (climate account for waste management. Phase I and II: Glass packaging, Metal Packaging, Paper, Cardboard, Plastic Packaging, Wet Organic Waste, Tree Waste and Refuse Waste from

Households). Avfall Norge—Rapport 5/2009.

Raadal, H. L., Modahl, I. S., & Lyng, K. A. (2009)

and parga no	Publisher	phone:	+47 23 08 80 00
epd-norge.no	The Norwegian EPD Foundation	e-mail:	post@epd-norge.no
The Norwegian EPD Foundation	Post Box 5250 Majorstuen, 0303 Oslo		
<u> </u>	Norway	Web:	epd-norge.no
	Owner of the declaration	phone:	(+47) 40 555 001
TAKTILA"	Taktila AS	e-mail:	oyvind@taktila.no
	Taktila AS, Teglgata 5, 7502 Stjørdal		Oyvind@taktila.no
Leder vei.	Norway	Web:	Taktila
	Author of the Life Cycle Assessment	phone:	+47 950 33 822
asplan viak	Vidar L. Yttersian	e-mail:	
viak / 🚺 🕽	Asplan Viak AS		vidar.yttersian@asplanviak.no
	Kjørbogata 20, 1337 Sandvika		
	Norway	Web:	asplanviak.no