



Rakennustietosäätiö RTS RTS EPD, Building Information Water-borne interior paints Foundation RTS

RAKENNUSTIETO

Scope of the declaration

This environmental product declaration covers the environmental impacts of Teknos water-borne interior paints and coatings. The declaration has been prepared in accordance with EN 15804:2012+A1:2013 and ISO 14025 standards and the additional requirements stated in the RTS PCR (English version, 2.6.2016). This declaration covers the life cycle stages from cradle-to-gate.

10.03.2016
Building Information
Foundation RTS
Malminkatu 16 A 00100 Helsinki
<http://epd.rts.fi>

Committee secretary

RTS managing director



General information, declaration scope and verification (7.1)

1. Owner of the declaration, manufacturer

Teknos Oy
Takkatie 3, PL 107, 00371 Helsinki, Finland
Tero Rönkä
+358 9 506 091
tero.ronka@teknos.fi

2. Product name and number

Water-borne interior paints and coatings

3. Place of production

Rajamäki, Finland

4. Additional information

<http://www.teknos.com/>

5. Product Category Rules and the scope of the declaration

This EPD has been prepared in accordance with EN 15804:2012+A1:2013 and ISO 14025 standards together with the RTS PCR (English version, 2.6.2016). Product specific category rules have not been applied in this EPD. EPD of construction materials may not be comparable if they do not comply with EN 15804 and seen in a building context. This EPD represents environmental impacts of water-borne interior paints and coatings produced in Rajamäki plant, Finland.

6. Author of the life-cycle assessment and declaration

Bionova Engineering, MSc Anni Oviir. Hämeentie 31, 00500
Rakennustietosäätiö RTS Building Information Foundation

7. Verification

This EPD has been verified according to the requirements of ISO 14025:2010, EN 15804:2012+A1:2013 and RTS PCR by a third party. The verification has been carried out by Bionova Ltd, Rodrigo Castro, according to the above-mentioned PCR. Hämeentie 31, 00500 Helsinki, Finland +358 404826648 www.bionova.fi

8. Declaration issue date and validity

09.04.2018 – 09.04.2023

European standard EN 15804: 2014 A1 serves as the core PCR

Independent verification of the declaration and data, according to ISO14025:2010

Internal External

Third party verifier:

Rodrigo Castro (PhD), Bionova Ltd

Product information

9. Product description

This EPD covers a range of high-quality water-borne Teknos paints for decorating and priming interior walls, ceilings and floors in different glosses on different surfaces. The products are designed to meet variable requirements of professional painters and DIYs concerning durability, washability and environmental sustainability. The main market area of the product is Europe. This EPD is representing environmental impacts of an average Teknos water-borne interior paint based on production data. The EPD is representing environmental impacts of the products:

BIORA 3

Full-matt primer and ceiling paint for interior use. Can be applied to concrete, plaster, stopper, brick and on to various building boards. Also, suitable for repainting old alkyd and dispersion paint coats.

BIORA 4

Full-matt paint for walls and ceilings for interior use. Can be applied to concrete, plaster, stopper, brick and on to various building boards. Also, suitable for repainting old alkyd and dispersion paint coats.

BIORA 7

Matt paint for walls and ceilings for interior use. Can be applied to concrete, plaster, stopper, brick and on to various building boards. Also, suitable for repainting old alkyd and dispersion paint coats.

BIORA 20

Semi-matt paint for walls and ceilings for interior use. Can be applied to concrete, plaster, stopper, brick and on to various building boards. Also, suitable for repainting old alkyd and dispersion paint coats.

BIORA BALANCE

Full-matt paint for walls and ceilings for interior use. Can be applied to concrete, plaster, stopper, brick and on to various building boards. Also, suitable for repainting old alkyd and dispersion paint coats.

EKORA 2

Full-matt ceiling paint. Can be applied to concrete, plaster, stopper, brick and on to various building boards. Also, suitable for repainting old alkyd and dispersion paint coats.

EKORA 3

Full-matt priming paint for walls and ceilings for interior use. Can be applied to concrete, plaster, stopper, brick and on to various building boards. Also, suitable for repainting old alkyd and dispersion paint coats.

EKORA 7

Matt paint for walls and ceilings for interior use. Can be applied to concrete, plaster, stopper, brick and on to various building boards. Also, suitable for repainting old alkyd and dispersion paint coats.

EKORA 12

Semi-matt paint for walls and ceilings for interior use. Can be applied to concrete, plaster, stopper, brick and on to various building boards. Also, suitable for repainting old alkyd and dispersion paint coats.

EKORA 20

Semi-matt paint for walls and ceilings for interior use. Can be applied to concrete, plaster, stopper, brick and on to various building boards. Also, suitable for repainting old alkyd and dispersion paint coats.

KOLIBRI SAND

Full-matt decorative textured coating for interior use. Can be applied to concrete, plaster, stopper, brick and on to various building boards. Also, suitable for repainting old alkyd and dispersion paint coats.

PANEELIKATTOMAALI

Matt paint for panel ceilings. For priming and top coating of untreated and previously varnished or painted wooden ceilings.

PANEELISEINÄMAALI

Matt paint for panel walls for interior use. For priming and top coating of untreated and previously varnished or painted panel and log walls.

RANCH EXKLUSIV

Semi-gloss paint for interior use. Can be applied to plastering, concrete, galvanized or aluminum sheet surfaces, etc. Also, suitable for repainting old alkyd and dispersion paint coats.

RANCH STALLFÄRG

Full-matt paint for interior use. Can be applied to plaster and concrete in stables for animals, in warehouses and industrial premises. Also, suitable for repainting old alkyd and dispersion paint coats.

SUPERLATEKSI

Matt paint for interior use. Walls and ceilings, radiators and heating pipes, galvanized air ducts and cast concrete surfaces. The surface can be chip, fibre, gypsum or any interior board, wood, concrete, thin-plate, plaster, brick and filler. Also for clean oil and alkyd paint surfaces and onto plastic coated thin-plate. Suitable also for repainting old alkyd and dispersion paint coats.

TAPETTIPOHJAMAALI

Full-matt priming paint for walls that will be covered with wallpaper for interior use. For priming on new and previously painted concrete, filler and building board surfaces that will be covered with paper, vinyl or fibre based wallpaper, as well as for fastening and priming of fibreglass cloth.

TEKNOSPRO 5

Full-matt paint for walls and ceilings for interior use. Can be applied to concrete, plaster, stopper, brick and on to various building boards. Also, suitable for repainting old alkyd and dispersion paint coats.

TEKNOSPRO 7

Matt paint for walls and ceilings for interior use. Can be applied to concrete, plaster, stopper, brick and on to various building boards. Also, suitable for repainting old alkyd and dispersion paint coats.

TEKNOSPRO 10

Matt paint for walls and ceilings for interior use. Can be applied to concrete, plaster, stopper, brick and on to various building boards. Also, suitable for repainting old alkyd and dispersion paint coats.

TEKNOSPRO FSF 40

Semi-gloss paint for interior use. For painting of wood and primed metal surfaces: e.g. doors, furniture and mouldings. Also, suitable for repainting old alkyd and dispersion paint coats.

TEKNOSPRO FSF 70

Gloss paint for interior use. For painting of wood and primed metal surfaces: e.g. doors, furniture and mouldings. Also, suitable for repainting old alkyd and dispersion paint coats.

TEKNOSPRO BINDER

Dust binder for walls and ceilings for interior use. Can be applied on untreated concrete, brick, building blocks, building boards etc. indoors.

TEKNOSPRO BINDER PLUS

Dust binder for interior and exterior use. For floors, walls and ceilings in heated and cold spaces, as well as for concrete surfaces outdoors but protected from weather, such as car parks. TEKNOSPRO BINDER PLUS is suited for dust binding of untreated concrete, brick, building blocks, building boards, plaster and filler surfaces etc.

TEKNOSPRO GRUND

Full-matt priming paint for walls and ceilings for interior use. Can be applied to concrete, plaster, stopper, brick and on to various building boards. Also, suitable for repainting old alkyd and dispersion paint coats.

TEKNOSPRO KATTO

Full-matt paint for ceilings for interior use. Can be applied to concrete, plaster, stopper, brick and on to various building boards. Also, suitable for repainting old alkyd and dispersion paint coats.

TEKNOSPRO POHJA

Priming paint for walls and ceilings interior use. New and previously painted surfaces made of concrete, plaster, stopper, brick, wood or building boards. Also, suitable for repainting old alkyd and dispersion paint coats.

TEKNOSPRO TAK

Ceiling paint. New and previously painted surfaces made of concrete, plaster, stopper, brick and construction boards. Also, suitable for repainting old alkyd and dispersion paint coats.

TELA 3

Full-matt priming paint for walls and ceilings for interior use. New and previously painted surfaces made of concrete, plaster, filler, brick and building boards indoors. Also, suitable for repainting old alkyd and dispersion paint coats.

TELA 7

Matt paint for walls and ceilings for interior use. New and previously painted surfaces made of concrete, plaster, stopper, brick and building boards indoors. Also, suitable for repainting old alkyd and dispersion paint coats.

TELA 20

Semi-matt paint for walls and ceilings interior use. New and previously painted surfaces made of concrete, plaster, stopper, brick and building boards indoors. Also, suitable for repainting old alkyd and dispersion paint coats.

TELA TAKSVART

Full-matt ceiling paint. New and previously painted surfaces made of wood, concrete, plaster, stopper, brick and building boards. Also, suitable for repainting old alkyd and dispersion paint coats.

TELA TAUSTAMUSTA

Full-matt ceiling paint. New and previously painted surfaces made of concrete, plaster, stopper, brick and building boards. Also, suitable for repainting old alkyd and dispersion paint coats.

TIMANTTI 3

Full-matt primer for walls and ceilings for interior use. For priming unpainted concrete, plaster, stopper, brick and building board surfaces indoors. TIMANTTI 3 can be used as an adhesion primer for wall and ceiling surfaces previously painted with alkyd or dispersion paints. Also, suitable for priming surfaces that are to be wallpapered or to which a stick-on wall covering (e.g. a non-woven wallpaper) is attached. TIMANTTI 3 can also be applied on galvanized sheet metal surfaces, such as air condition pipes.

TIMANTTI 7

Matt paint for walls and ceilings for interior use. New and previously painted surfaces made of concrete, plaster, stopper, brick and construction boards. Also, suitable for repainting old alkyd and dispersion paint coats.

TIMANTTI 12

Semi-matt paint for walls and ceilings for interior use. New and previously painted surfaces made of concrete, plaster, stopper, brick and construction boards. Also, suitable for repainting old alkyd and dispersion paint coats.

TIMANTTI 20

Semi-matt paint for walls and ceilings for interior use. New and previously painted surfaces made of concrete, plaster, stopper, brick and construction boards. Also, suitable for repainting old alkyd and dispersion paint coats.

TIMANTTI 40

Semi-gloss paint for walls and ceilings for interior use. New and previously painted surfaces made of concrete, plaster, stopper, brick and construction boards. Also, suitable for repainting old alkyd and dispersion paint coats.

TIMANTTI CLEAN

Semi-matt paint for walls and ceilings for interior use. New and previously painted surfaces made of concrete, plaster, stopper, brick and construction boards. Also, suitable for repainting old alkyd and dispersion paint coats.

TIMANTTI STOP

Insulation primer for interior use. Used for previously painted and unpainted soiled concrete, stopper and building board surfaces which cannot be washed or otherwise cleaned before top coating. For walls and ceilings as well as doors, windows and other fixed furniture indoors.

TIMANTTI W

Moisture sealer for walls and ceilings for interior use. The substrate can be stopper or concrete, different building boards, glass fibre wall fabric glued with adhesive for moist areas, etc.

TREND 3

Full-matt priming paint for walls and ceilings for interior use. New and previously painted surfaces made of concrete, plaster, stopper, brick and construction boards. Also, suitable for repainting old alkyd and dispersion paint coats.

TREND 7

Matt paint for walls and ceilings for interior use. New and previously painted surfaces made of concrete, plaster, stopper, brick and construction boards. Also, suitable for repainting old alkyd and dispersion paint coats.

TREND 12

Semi-matt paint for walls and ceilings for interior use. New and previously painted surfaces made of concrete, plaster, stopper, brick and construction boards. Also, suitable for repainting old alkyd and dispersion paint coats.

TREND 20

Semi-matt paint for walls and ceilings for interior use. New and previously painted surfaces made of concrete, plaster, stopper, brick and construction boards. Also, suitable for repainting old alkyd and dispersion paint coats.

10. Technical specifications

The product consists of the following materials: water, binders, fillers, pigments, thickeners, preservatives, solvents and defoamers. Average coverage is 8-10 m²/L. Practical spreading rate depends on surface quality and application method.

The average density of the product is 1.36 kg/l.

11. Product standards

EN 13163:2015 Thermal insulation products for buildings

12. Physical properties

Detailed physical properties for all Teknos interior paints are available at <http://www.teknos.com/decorative-paints/>.

13. Raw-materials of the product

Product structure / composition / raw-material	Amount %
Water	30-32%
Binders	29-30%
Fillers	23-25%
Pigments	13-15%
Thickeners	1-2%
Preservatives	<1%
Solvents	<1%
Defoamers	<1%

14. Substances under European Chemicals Agency's REACH, SVHC restrictions

Name	EC Number	CAS Number
Preservatives include CIT/MIT (less than 10 ppm of the total raw material usage)	611-341-5	55965-84-9

15. Functional / declared unit

1 liter

16. System boundary

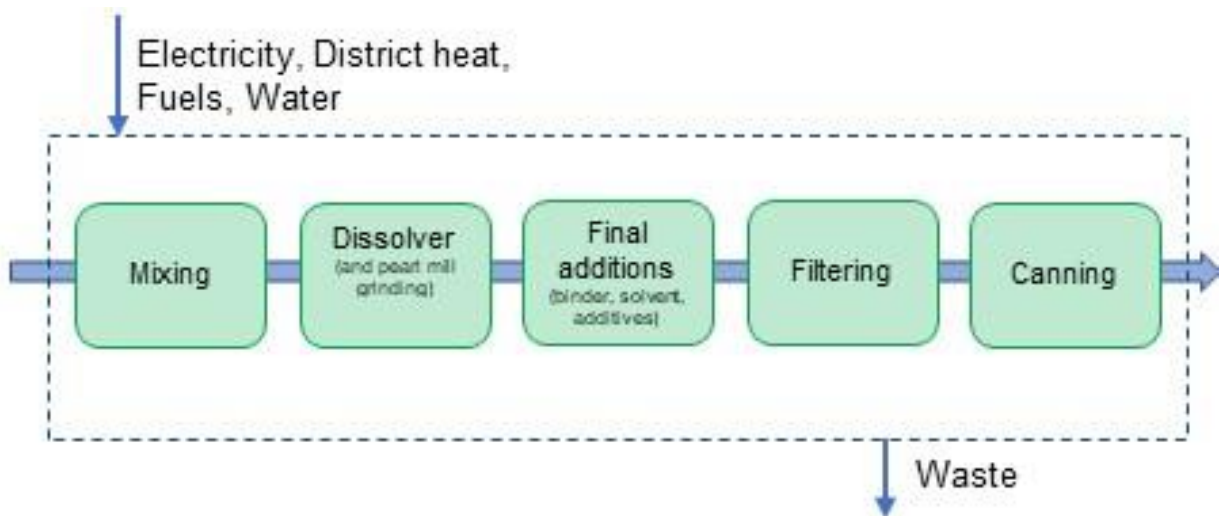
This EPD covers the following modules; A1 (Raw material supply), A2 (Transport), A3 (Manufacturing)

17. Cut-off criteria

All main flows of production materials, energy and packing have been included. The results have been provided as an aggregate of A1-A3 life cycle stages. The study excludes some minor raw materials which contribute less than 0.2 w% of the total raw materials mass. The total amount of excluded raw materials is less than 5% as per the requirements of EN 15804. The study does not exclude any hazardous materials or substances. The transportation module (A4) has been excluded since the impacts of the module are remarkably smaller (less than 20%) from the A1-A3 modules as per RTS PCR requirements.

18. Production process

The product is manufactured from raw materials, that are transported to the Teknos plant from different locations. The materials are mixed after which the substance is treated in dissolver and pearl mix grinding. The binder, solvents, additives are added and product is filtered. Final process is canning.



Scope of the Life-Cycle Assessment (7.2.1-2)

Mark all the covered modules of the EPD with X. Mandatory modules are marked with blue in the table below. This declaration covers "cradle-to-gate with options". For other fields mark MND (module not declared) or MNR (module not relevant)

Product stage			Assembly stage		Use stage							End of life stage				Beyond the system boundaries		
A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D	D	D
x	x	x	MNR	MND	MND	MND	MND	MND	MND	MND	MND	MNR	MNR	MNR	MNR	MNR	MNR	MNR
Raw materials	Transport	Manufacturing	Transport	Assembly	Use	Maintenance	Repair	Replacement	Refurbishment	Operational energy use	Operational water use	De-construction demolition	Transport	Waste processing	Disposal	Reuse	Recovery	Recycling

	Mandatory modules
	Mandatory as per the RTS PCR section 6.2.1 rules and terms
	Optional modules based on scenarios

Environmental impacts and raw-material use (7.2.3-7.2.4)

19. Environmental impacts

The results of a life cycle assessment are relative. They do not predict impact on category endpoints, exceeding of limit values, safety margins, or risks. The impacts are presented per declared unit, 1 liter of product. The impacts are mainly caused by the raw material production process (A1).

Environmental impact								
Parameter	Unit	A1-A3	A4	C1	C2	C3	C4	D
Global warming potential	kg CO2 -eqv	2,19E0	MND	MND	MND	MND	MND	MND
Depletion of stratospheric ozone layer	kg CFC11-eqv	1,93E-7	MND	MND	MND	MND	MND	MND
Formation of photochemical ozone	kg C2H4 -eqv	1,5E-3	MND	MND	MND	MND	MND	MND
Acidification	kg SO2 -eqv	2,83E-2	MND	MND	MND	MND	MND	MND
Eutrophication	kg PO4 3--eqv	3,43E-3	MND	MND	MND	MND	MND	MND
Abiotic depletion of non fossil resources	kg Sb-eqv	9,87E-5	MND	MND	MND	MND	MND	MND
Abiotic depletion of fossil resources	MJ	3,15E1	MND	MND	MND	MND	MND	MND

20. Use of natural resources

Resource use								
Parameter	Unit	A1-A3	A4	C1	C2	C3	C4	D
Renewable primary energy resources used as energy carrier	MJ	1,21E0	MND	MND	MND	MND	MND	MND
Renewable primary energy resources used as raw materials	MJ	6,19E-1	MND	MND	MND	MND	MND	MND
Total use of renewable primary energy resources	MJ	1,83E0	MND	MND	MND	MND	MND	MND
Nonrenewable primary energy resources used as energy carrier	MJ	3,48E1	MND	MND	MND	MND	MND	MND
Nonrenewable primary energy resources used as materials	MJ	8,78E-1	MND	MND	MND	MND	MND	MND
Total use of nonrenewable primary energy resources	MJ	3,57E1	MND	MND	MND	MND	MND	MND
Use of secondary materials	kg	1,09E-2	MND	MND	MND	MND	MND	MND
Use of renewable secondary fuels	MJ	1,18E-3	MND	MND	MND	MND	MND	MND
Use of nonrenewable secondary fuels	MJ	1,86E-4	MND	MND	MND	MND	MND	MND
Use of net fresh water	m ³	3,02E0	MND	MND	MND	MND	MND	MND

21. End of life - Waste

Waste								
Parameter	Unit	A1-A3	A4	C1	C2	C3	C4	D
Hazardous waste	kg	2,82E-2	MND	MND	MND	MND	MND	MND
Non-hazardous waste	kg	1,95E-1	MND	MND	MND	MND	MND	MND
Radioactive waste	kg	1,36E-4	MND	MND	MND	MND	MND	MND

22. End of life - Output flow

Output flow								
Parameter	Unit	A1-A3	A4	C1	C2	C3	C4	D
Components for reuse	kg	3,97E-5	MND	MND	MND	MND	MND	MND
Materials for recycling	kg	3,29E-2	MND	MND	MND	MND	MND	MND
Materials for energy recovery	kg	2,4E-2	MND	MND	MND	MND	MND	MND
Exported energy	MJ	0E0	MND	MND	MND	MND	MND	MND

Scenarios and additional technical information (7.3)

23. Electricity in the manufacturing phase (7.3. A3)

Object	Value	Data quality
A3 data quality of electricity and CO2 emission kg CO2 eq. / kWh	FI 0.235	The impacts of Finnish electricity were calculated based on Energiategollisuus (2016b) and Statistics Finland (2016), which provide the yearly fuel mixes for electricity production in Finland. Imported electricity has been calculated based on ecoinvent 3.3 database. The impacts include all upstream processes as well as transmission losses.
District heating/cooling data quality and CO2 emissions kg CO2 eq./kWh	FI 0.072	Based on specific fuel mix of the district heating plant in Rajamäki (Rajamäen biolämpökeskus) by Nurmijärven Sählö Oy, Finland for 2015 (Energiategollisuus 2016).

24. Transport from production place to user (7.3.2 A4)

N/A

25. End-of-life process description (7.3.4)

N/A

26. Additional technical information

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27. Product data sheet

Find product data sheets from Teknos website <https://www.teknos.com/decorative-paints/products/product-search/Interior-paints/>

28. Additional information (7.4)

Air, soil and water impacts during the use phase have not been studied.

29. Bibliography

ISO 14025:2010 Environmental labels and declarations – Type III environmental declarations Principles and procedures. ISO 14040:2006 Environmental management. Life cycle assessment. Principles and frameworks. ISO 14044:2006 Environmental management. Life cycle assessment. Requirements and guidelines. EN 15804:2012+A1 Sustainability in construction works – Environmental product declarations – Core rules for the product category of construction products. RTS PCR 2.6.2016 RTS PCR protocol: EPDs published by the Building Information Foundation RTS sr. PT 18 RT EPD Committee. (English version)