



**Rakennustietosäätiö RTS**    RTS EPD, RTS\_14\_18  
**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.

26.04.2018  
Building Information  
Foundation RTS  
Malminkatu 16 A 00100 Helsinki  
<http://epd.rts.fi>



Laura Sariola  
Committee secretary



Markku Hedman  
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](http://www.bionova.fi)

### 8. Declaration issue date and validity

10.04.2018 – 10.04.2023

#### 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 PRIMER**

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 m<sup>2</sup>/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

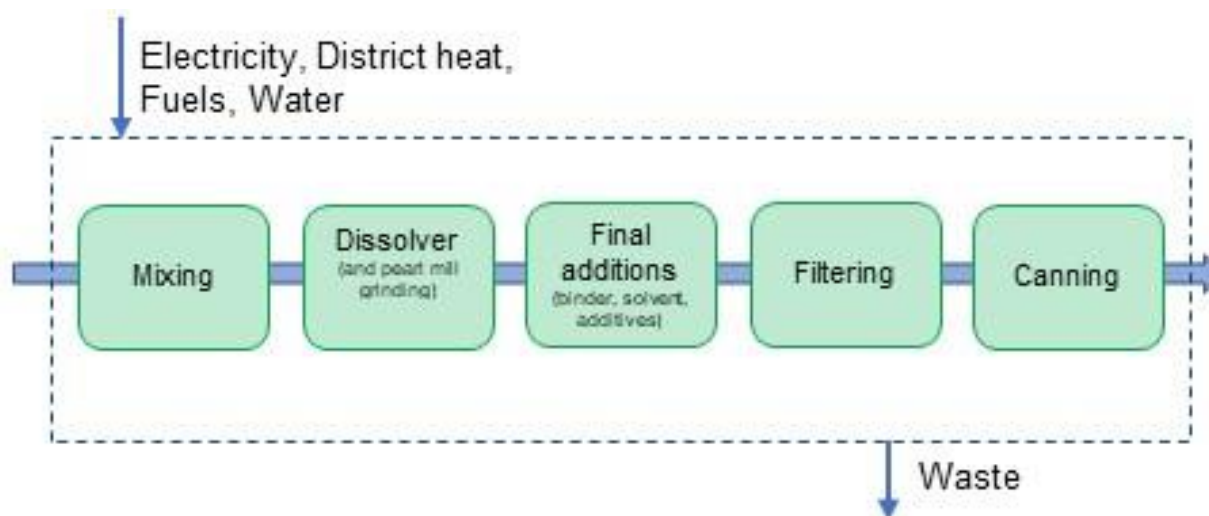
This EPD covers the following modules; A1 (Raw material supply), A2 (Transport), A3 (Manufacturing)

#### 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 (GWP)	kg CO <sub>2</sub> -eqv	2,19E0	MNR	MNR	MNR	MNR	MNR	MNR
Depletion of stratospheric ozone layer (ODP)	kg CFC11-eqv	1,93E-7	MNR	MNR	MNR	MNR	MNR	MNR
Formation of photochemical ozone (POCP)	kg C <sub>2</sub> H <sub>4</sub> -eqv	1,5E-3	MNR	MNR	MNR	MNR	MNR	MNR
Acidification (AP)	kg SO <sub>2</sub> -eqv	2,83E-2	MNR	MNR	MNR	MNR	MNR	MNR
Eutrophication (EP)	kg PO <sub>4</sub> <sup>3-</sup> -eqv	3,43E-3	MNR	MNR	MNR	MNR	MNR	MNR
Abiotic depletion of non fossil resources (ADP-e)	kg Sb-eqv	9,87E-5	MNR	MNR	MNR	MNR	MNR	MNR
Abiotic depletion of fossil resources (ADP-f)	MJ	3,15E1	MNR	MNR	MNR	MNR	MNR	MNR

## 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	MNR	MNR	MNR	MNR	MNR	MNR
Renewable primary energy resources used as raw materials	MJ	6,19E-1	MNR	MNR	MNR	MNR	MNR	MNR
Total use of renewable primary energy resources	MJ	1,83E0	MNR	MNR	MNR	MNR	MNR	MNR
Nonrenewable primary energy resources used as energy carrier	MJ	3,48E1	MNR	MNR	MNR	MNR	MNR	MNR
Nonrenewable primary energy resources used as materials	MJ	8,78E-1	MNR	MNR	MNR	MNR	MNR	MNR
Total use of nonrenewable primary energy resources	MJ	3,57E1	MNR	MNR	MNR	MNR	MNR	MNR
Use of secondary materials	kg	1,09E-2	MNR	MNR	MNR	MNR	MNR	MNR
Use of renewable secondary fuels	MJ	1,18E-3	MNR	MNR	MNR	MNR	MNR	MNR
Use of nonrenewable secondary fuels	MJ	1,86E-4	MNR	MNR	MNR	MNR	MNR	MNR
Use of net fresh water	m <sup>3</sup>	3,02E0	MNR	MNR	MNR	MNR	MNR	MNR

## 21. End of life - Waste

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

## 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	MNR	MNR	MNR	MNR	MNR	MNR
Materials for recycling	kg	3,29E-2	MNR	MNR	MNR	MNR	MNR	MNR
Materials for energy recovery	kg	2,4E-2	MNR	MNR	MNR	MNR	MNR	MNR
Exported energy	MJ	0E0	MNR	MNR	MNR	MNR	MNR	MNR



## 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	<b>FI 0.235</b>	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	<b>FI 0.072</b>	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)