

**Environmental  
Product  
Declaration**

According to ISO14025+EN15804+A2

This declaration is for:  
**Trimetal Interior Wall Paints**

Provided by:  
**AkzoNobel**



MRPI® registration:  
**1.1.00886.2025**

Program operator:  
**Stichting MRPI®**  
Publisher:  
**Stichting MRPI®**  
[www.mrpi.nl](http://www.mrpi.nl)

Date of first issue:  
**2-7-2025**  
Date of this issue:  
**2-7-2025**  
Expiry date:  
**2-7-2030**



## COMPANY INFORMATION

AkzoNobel

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Netherlands

<https://www.akzonobel.com>

## MRPI® REGISTRATION

1.1.00886.2025

## DATE OF THIS ISSUE

2-7-2025

## EXPIRY DATE

2-7-2030

## SCOPE OF DECLARATION

This MRPI®-EPD certificate is verified by Gert-Jan Vroege, Eco-intelligence. The LCA study has been done by Brienne Wiersma & Robert Jan Volders, Ecomatters. The certificate is based on an LCA-dossier according to ISO14025+EN15804+A2. It is verified according to the 'MRPI®-EPD verification protocol November 2020.v4.0'. EPDs of construction products may not be comparable if they do not comply with EN15804+A2. Declaration of SVHC that are listed on the 'Candidate list of Substances of Very High Concern for authorisation' when content exceeds the limits for registration with ECHA.

## PROGRAM OPERATOR

Stichting MRPI®

Kingsfordweg 151

1043 GR

Amsterdam

## PRODUCT

Trimetal Interior Wall Paints

## DECLARED UNIT / FUNCTIONAL UNIT

1 Productiveness (m2)

## DESCRIPTION OF PRODUCT

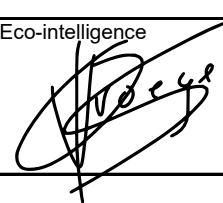
This EPD covers a range of high-quality waterborne wall paints for interior use from Trimetal.

## VISUAL PRODUCT



## MORE INFORMATION

[www.trimetal.nl](http://www.trimetal.nl); [www.trimetal.be](http://www.trimetal.be)

|                                                                        |                                                                                                                                                                                      |
|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ing. L. L. Oosterveen MSc. MBA</b><br><b>Managing Director MRPI</b> | <b>DEMONSTRATION OF VERIFICATION</b>                                                                                                                                                 |
|                                                                        | CEN standard EN15804 serves as the core PCR [1]                                                                                                                                      |
|                                                                        | Independent verification of the declaration an data<br>according to ISO14025+EN15804+A2<br>Internal: External: X                                                                     |
|                                                                        | Third party verifier: Gert-Jan Vroege, Eco-intelligence<br><br>[1] PCR = Product Category Rules |



## DETAILED PRODUCT DESCRIPTION

These Trimetal high quality waterborne wall paints for interiors offer specific benefits including extremely easy-to-clean with water- and grease-repellent properties for the Magna Clean, and great resistance to wear and tear extending the protection duration and maintenance cycle of interior walls for the Magna Protect. This EPD covers the following products: TRIMETAL MAGNA PROTECT, TRIMETAL MAGNA CLEAN. For detailed individual product benefits please visit [www.trimetal.nl](http://www.trimetal.nl) or [www.trimetal.be](http://www.trimetal.be)

Typical Use  
Interior walls & ceilings

Application Method  
roller, brush, spray

Pack Size  
1L, 2,5L, 10L

### Production process and conditions of delivery

During paint production, the raw materials are pre-weighed according to the percentage of each in the formulation. The pigment is then dispersed in a mixture of binder and solvent using a variety of machines. The amount and type of dispersion is product specific and depends on the type of finish required. Finally, tint is added to correct the color, the paint is thinned to viscosity, filtered and filled into the appropriate packaging container. All paint containers are transported from the production sites to a distribution center and finally to the customers.

| Paint characteristics                |               | Unit              |
|--------------------------------------|---------------|-------------------|
| Waterborne / Solventborne            | Waterborne    | value             |
| Interior wall / Exterior wall / Trim | Interior wall | value             |
| Lifetime                             | 15            | years             |
| Density                              | 1,3969        | kg/L              |
| Coverage                             | 10,356        | m <sup>2</sup> /L |
| Number of layers                     | 2             | value             |
| VOC content                          | 0,8           | g/L paint         |

| Component (> 1%) | (kg / %)     |
|------------------|--------------|
| Pigment          | Confidential |
| Binder           | Confidential |
| Solvent          | Confidential |

## SCOPE AND TYPE

The type of this EPD is Cradle-to-Gate with options. All major steps from the extraction of natural resources to the final disposal of the product are included in the environmental performance of the manufacturing phase, except those that are not relevant to the environmental performance of the product. This declaration does not imply an indicator result of zero.

This EPD is representative for products produced in Pilawa (PL) and Montataire (FR) and the application market is for customers in Europe. Likewise, for the end-of-life, the fate of the paint product is described within a European context.

The software LCA for Experts 10.9.0.31 is used to perform the LCA. In the model Ecoinvent 3.10 database was used.

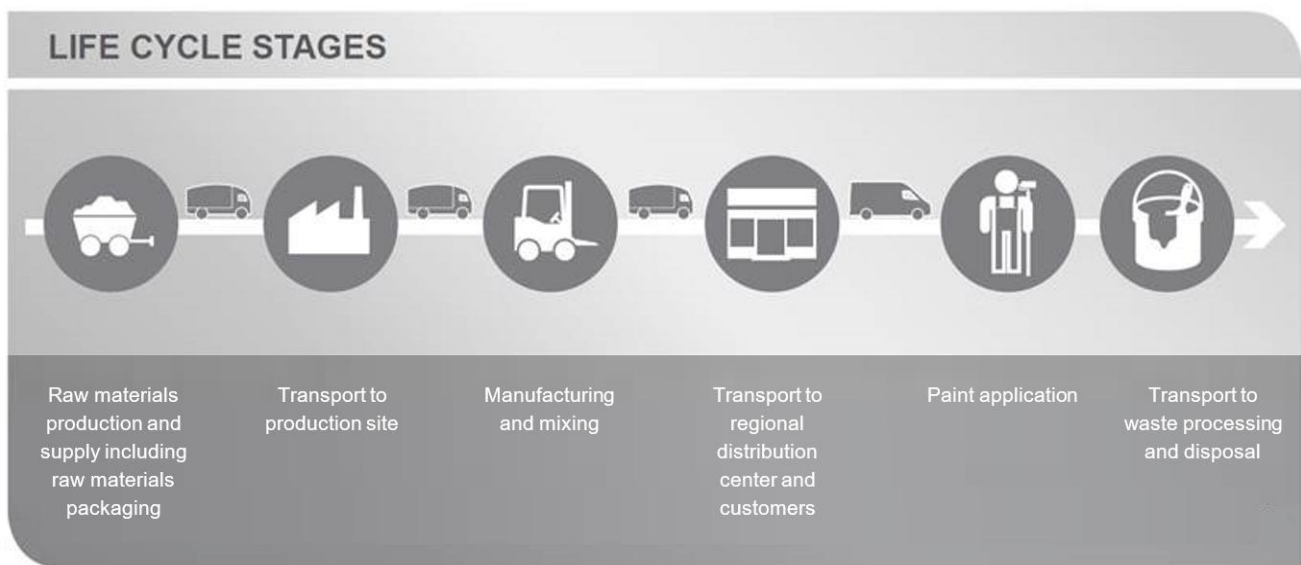
The validity of this EPD is in correspondence with the specifications of the LCA project report.

All impacts associated with the upstream production of materials and energy are included in the system boundaries. Mining activities and controlled landfills are included in the product systems. The emissions and resource extractions derived from these processes are considered elementary exchanges between the product systems and the environment.

| PRODUCT STAGE       |           |               | CONSTRUCTION PROCESS STAGE |          | USE STAGE |             |        |             |               |                        |                       | END OF LIFE STAGE          |           |                  |          | BENEFITS AND LOADS BEYOND THE SYSTEM BOUNDARIES |
|---------------------|-----------|---------------|----------------------------|----------|-----------|-------------|--------|-------------|---------------|------------------------|-----------------------|----------------------------|-----------|------------------|----------|-------------------------------------------------|
| Raw material supply | Transport | Manufacturing | Transport gate to site     | Assembly | Use       | Maintenance | Repair | Replacement | Refurbishment | Operational energy use | Operational water use | De-construction demolition | Transport | Waste processing | Disposal | Reuse - Recovery - Recycling potential          |
| A1                  | A2        | A3            | A4                         | A5       | B1        | B2          | B3     | B4          | B5            | B6                     | B7                    | C1                         | C2        | C3               | C4       | D                                               |
| X                   | X         | X             | X                          | X        | ND        | ND          | ND     | ND          | ND            | ND                     | ND                    | X                          | X         | X                | X        | X                                               |

X = Modules Assessed

ND = Not Declared



## REPRESENTATIVENESS

This EPD is representative of the following paint products:

1. TRIMETAL MAGNA PROTECT
2. TRIMETAL MAGNA CLEAN

This EPD is representative for the products manufactured in Pilawa (PL) and Montataire (FR) and sold in Europe.

## ENVIRONMENTAL IMPACT per functional unit or declared unit (core indicators A2)

| Unit                               | A1        | A2       | A3        | A1-A3     | A4       | A5        | B1       | B2       | B3       | B4       | B5       | B6       | B7       | C1       | C2       | C3       | C4        | D         |
|------------------------------------|-----------|----------|-----------|-----------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|
| GWP-total kg CO2 eq.               | 3,63E-01  | 1,44E-02 | 7,18E-02  | 4,49E-01  | 2,35E-02 | 3,82E-02  | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 1,45E-03 | 0,00E+00 | 6,30E-02  | -1,07E-02 |
| GWP-fossil kg CO2 eq.              | 3,62E-01  | 1,44E-02 | 8,27E-02  | 4,59E-01  | 2,35E-02 | 2,99E-02  | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 1,44E-03 | 0,00E+00 | 6,30E-02  | -1,05E-02 |
| GWP-biogenic kg CO2 eq.            | -8,90E-04 | 7,49E-06 | -1,11E-02 | -1,20E-02 | 1,22E-05 | 8,32E-03  | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 7,53E-07 | 0,00E+00 | 9,37E-06  | -2,00E-04 |
| GWP-luluc kg CO2 eq.               | 1,37E-03  | 4,97E-06 | 8,48E-05  | 1,46E-03  | 8,08E-06 | 7,36E-07  | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 4,99E-07 | 0,00E+00 | 9,79E-07  | -1,67E-05 |
| ODP kg CFC11 eq.                   | 1,80E-08  | 2,92E-10 | 1,22E-09  | 1,96E-08  | 4,74E-10 | 2,30E-11  | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 2,93E-11 | 0,00E+00 | 5,63E-11  | -2,21E-10 |
| AP mol H+ eq.                      | 2,60E-03  | 5,75E-05 | 3,87E-04  | 3,04E-03  | 9,37E-05 | 9,18E-06  | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 5,77E-06 | 0,00E+00 | 1,54E-05  | -2,78E-05 |
| EP-fresh water kg P eq.            | 9,09E-05  | 9,88E-07 | 2,65E-05  | 1,18E-04  | 1,60E-06 | 3,08E-07  | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 9,88E-08 | 0,00E+00 | 2,27E-07  | -5,15E-06 |
| EP-marine kg N eq.                 | 3,75E-04  | 2,16E-05 | 8,11E-05  | 4,78E-04  | 3,52E-05 | 6,76E-06  | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 2,17E-06 | 0,00E+00 | 6,29E-06  | -5,99E-06 |
| EP-terrestrial mol N eq.           | 3,98E-03  | 2,34E-04 | 7,84E-04  | 4,99E-03  | 3,82E-04 | 3,85E-05  | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 2,35E-05 | 0,00E+00 | 6,82E-05  | -5,43E-05 |
| POCP kg NMVOC eq.                  | 1,33E-03  | 9,08E-05 | 3,01E-04  | 1,73E-03  | 1,48E-04 | 4,36E-05  | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 9,12E-06 | 0,00E+00 | 2,56E-05  | -1,04E-05 |
| ADP-minerals & metals kg Sb eq.    | 1,87E-06  | 3,91E-08 | 1,84E-06  | 3,74E-06  | 6,37E-08 | 1,19E-08  | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 3,93E-09 | 0,00E+00 | 4,27E-09  | 2,24E-08  |
| ADP-fossil MJ, net calorific value | 6,46E+00  | 2,11E-01 | 1,46E+00  | 8,12E+00  | 3,44E-01 | 1,88E-02  | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 2,12E-02 | 0,00E+00 | 4,14E-02  | -1,50E-01 |
| WDP m3 world eq. Deprived          | 1,48E+01  | 1,36E-03 | 4,42E-02  | 1,48E+01  | 2,21E-03 | -1,30E-03 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 1,36E-04 | 0,00E+00 | -1,43E-02 | -4,24E-03 |

GWP-total = Global Warming Potential total

GWP-fossil = Global Warming Potential fossil fuels

GWP-biogenic = Global Warming Potential biogenic total

GWP-luluc = Global Warming Potential land use and land use change

ODP = Depletion potential of the stratospheric ozone layer

AP = Acidification Potential, Accumulated Exceedence

EP-freshwater = Eutrophication Potential, fraction of nutrients reaching freshwater end compartment

EP-marine = Eutrophication Potential, fraction of nutrients reaching marine end compartment

EP-terrestrial = Eutrophication Potential, Accumulated Exceedence

POCP = Formation potential of tropospheric ozone photochemical oxidants

ADP-minerals & metals = Abiotic Depletion Potential for non-fossil resources [1]

ADP-fossil = Abiotic Depletion for fossil resources potential [1]

WDP = Water (user) deprivation potential, deprivation-weighted water consumption [1]

Disclaimer [1]:

- The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

# ENVIRONMENTAL IMPACT per functional unit or declared unit (additional indicators A2)

| Unit                    | A1       | A2       | A3       | A1-A3    | A4       | A5       | B1       | B2       | B3       | B4       | B5       | B6       | B7       | C1       | C2       | C3       | C4       | D         |
|-------------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|
| PM<br>Disease incidence | 2,35E-08 | 1,13E-09 | 4,65E-09 | 2,93E-08 | 1,85E-09 | 1,17E-10 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 1,14E-10 | 0,00E+00 | 2,85E-10 | -1,38E-10 |
| IRP<br>kBq U235 eq.     | 3,35E-02 | 2,56E-04 | 7,45E-03 | 4,12E-02 | 4,16E-04 | 4,41E-05 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 2,57E-05 | 0,00E+00 | 5,44E-05 | -3,59E-03 |
| ETP-fw<br>CTUe          | 3,88E+00 | 4,99E-02 | 4,90E-01 | 4,42E+00 | 8,12E-02 | 4,86E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 5,02E-03 | 0,00E+00 | 4,18E+00 | -1,46E-01 |
| HTP-c<br>CTUh           | 3,38E-10 | 9,01E-11 | 1,14E-09 | 1,57E-09 | 1,47E-10 | 2,52E-11 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 9,05E-12 | 0,00E+00 | 7,85E-11 | -5,26E-10 |
| HTP-nc<br>CTUh          | 2,92E-09 | 1,26E-10 | 1,42E-09 | 4,46E-09 | 2,05E-10 | 1,01E-10 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 1,27E-11 | 0,00E+00 | 6,86E-10 | -5,87E-11 |
| SQP<br>-                | 2,07E+00 | 2,11E-01 | 1,94E+00 | 4,22E+00 | 3,44E-01 | 2,02E-02 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 2,12E-02 | 0,00E+00 | 8,78E-02 | -1,70E-02 |

- PM = Potential incidence of disease due to PM emissions
- IRP = Potential Human exposure efficiency relative to U235 [1]
- ETP-fw = Potential Comparative Toxic Unit for ecosystems [2]
- HTP-c = Potential Comparative Toxic Unit for humans [2]
- HTP-nc = Potential Comparative Toxic Unit for humans, non-cancer [2]
- SQP = Potential soil quality index [2]

## Disclaimer [1]:

- 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.

## Disclaimer [2]:

- The results of this environmental impact indicator shall be used with care as the uncertainties on these results are high or as there is limited experience with the indicator.

# OUTPUT FLOWS AND WASTE CATEGORIES per functional unit or declared unit (A1 en A2)

|      | Unit | A1       | A2       | A3       | A1-A3    | A4       | A5       | B1       | B2       | B3       | B4       | B5       | B6       | B7       | C1       | C2       | C3       | C4       | D        |
|------|------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| HWD  | kg   | 0,00E+00 | 0,00E+00 | 1,65E-03 | 1,65E-03 | 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 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| NHWD | kg   | 0,00E+00 | 0,00E+00 | 6,66E-03 | 6,66E-03 | 0,00E+00 | 3,15E-02 | 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 | 1,70E-01 | 0,00E+00 |
| RWD  | 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 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| CRU  | 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 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| MFR  | kg   | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 6,15E-03 | 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 | 0,00E+00 | 0,00E+00 |
| MER  | kg   | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 1,76E-02 | 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 | 2,04E-02 | 0,00E+00 |
| EEE  | MJ   | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 4,40E-02 | 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 | 2,06E-02 | 0,00E+00 |
| ETE  | MJ   | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 8,66E-02 | 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 | 4,40E-02 | 0,00E+00 |

HWD = Hazardous Waste Disposed  
 NHWD = Non Hazardous Waste Disposed  
 RWD = Radioactive Waste Disposed  
 CRU = Components for reuse  
 MFR = Materials for recycling  
 MER = Materials for energy recovery  
 EEE = Exported Electrical Energy  
 ETE = Exported Thermal Energy

## RESOURCE USE per functional unit or declared unit (A1 and A2)

|       | Unit | A1       | A2       | A3       | A1-A3    | A4       | A5        | B1       | B2       | B3       | B4       | B5       | B6       | B7       | C1       | C2       | C3       | C4        | D         |
|-------|------|----------|----------|----------|----------|----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|-----------|-----------|
| PERE  | MJ   | 2,44E-01 | 3,35E-03 | 5,35E-01 | 7,83E-01 | 5,45E-03 | 7,59E-04  | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 3,36E-04 | 0,00E+00 | 7,14E-04  | -2,96E-02 |
| PERM  | 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 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00  | 0,00E+00  |
| PERT  | MJ   | 2,44E-01 | 3,35E-03 | 5,35E-01 | 7,83E-01 | 5,45E-03 | 7,59E-04  | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 3,36E-04 | 0,00E+00 | 7,14E-04  | -2,96E-02 |
| PENRE | MJ   | 6,46E+00 | 2,11E-01 | 1,46E+00 | 8,12E+00 | 3,44E-01 | 1,88E-02  | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 2,12E-02 | 0,00E+00 | 4,14E-02  | -1,50E-01 |
| PENRM | 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 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00  | 0,00E+00  |
| PENRT | MJ   | 6,46E+00 | 2,11E-01 | 1,46E+00 | 8,12E+00 | 3,44E-01 | 1,88E-02  | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 2,12E-02 | 0,00E+00 | 4,14E-02  | -1,50E-01 |
| SM    | 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 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00  | 0,00E+00  |
| RSF   | 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 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00  | 0,00E+00  |
| NSRF  | 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 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00  | 0,00E+00  |
| FW    | m3   | 5,27E-01 | 3,15E-05 | 1,03E-03 | 5,28E-01 | 5,13E-05 | -3,02E-05 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 3,16E-06 | 0,00E+00 | -3,34E-04 | -9,84E-05 |

|       |   |                                                                                                              |
|-------|---|--------------------------------------------------------------------------------------------------------------|
| PERE  | = | Use of renewable energy excluding renewable primary energy resources                                         |
| PERM  | = | Use of renewable energy resources used as raw materials                                                      |
| PERT  | = | Total use of renewable primary energy resources                                                              |
| PENRE | = | Use of non-renewable primary energy resources excluding non-renewable energy resources used as raw materials |
| PENRM | = | Use of non-renewable primary energy resources used as raw materials                                          |
| PENRT | = | Total use of non-renewable primary energy resources                                                          |
| SM    | = | Use of secondary materials                                                                                   |
| RSF   | = | Use of renewable secondary fuels                                                                             |
| NSRF  | = | Use of non-renewable secondary fuels                                                                         |
| FW    | = | Use of net fresh water                                                                                       |

## BIOGENIC CARBON CONTENT per functional unit or declared unit (A1 and A2)

|       | Unit | A1       | A2       | A3        | A1-A3     | A4       | A5       | B1       | B2       | B3       | B4       | B5       | B6       | B7       | C1       | C2       | C3       | C4       | D        |
|-------|------|----------|----------|-----------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| BBCpr | kg C | 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 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 | 0,00E+00 |
| BCCpa | kg C | 0,00E+00 | 0,00E+00 | -5,71E-03 | -5,71E-03 | 0,00E+00 | 5,71E-03 | 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 | 0,00E+00 | 0,00E+00 |

|       |   |                                      |
|-------|---|--------------------------------------|
| BCCpr | = | Biogenic carbon content in product   |
| BCCpa | = | Biogenic carbon content in packaging |

## CALCULATION RULES

### Cut off criteria

Some cut-offs were applied to the study. During the manufacturing process, the input of consumables and disposed packaging from the raw materials is cut off from the system boundaries due to lack of data on the composition of waste. Furthermore, brushes, clothes, buckets etc. used during the application process are excluded from the assessment since they are considered capital goods. Additionally, the energy consumed during application, used for instance in spray applicators, has not been included due to its insignificance.

### Data quality and data collection period

Specific data was collected from AkzoNobel through a questionnaire, including inquiries about paint characteristics and packaging, production information and end-of-life. The data collection period for specific data was the year 2023.

Data gaps (i.e. transport data, end of life scenarios) were covered with data generic values for transport as described in the Product Environmental Footprint Category Rules - Decorative Paints document version 1.0 published by CEPE and reviewed in April 2018 and the Product Environmental Footprint method (European Commission, 2021). Generic data (i.e. upstream acquisition and production of raw materials, transport, waste treatment processes) was selected from Ecoinvent 3.10 database. In the case of missing data, a relevant proxy was searched and adjusted to the corresponding unit process.

### Allocation procedure

To allocate the emissions and inputs to the manufactured products, the decision-hierarchy in ISO 14044 is used (ISO 2006). It is not possible to sub-divide the site data into a more detailed level or find physical causalities between inputs and outputs, thus allocation is done based on mass, considering the annual production of paint product for each site. The production of paint comprises only of the mixing ingredients. Therefore, the environmental impact is expected to be related to the mass of the products.

## SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION (PART 1)

### A1. Raw materials supply

This module considers the extraction and processing of all raw materials and energy which occur upstream to the manufacturing process, as well as waste processing up to the end-of waste state.

### A2. Transport of raw materials to manufacturer

This includes the transport distance of the raw materials to the manufacturing facility via road.

| Transport of raw materials       |                     | unit  |
|----------------------------------|---------------------|-------|
| Distance for raw materials       | 460                 | km    |
| Distance for packaging materials | 250                 | km    |
| Capacity                         | > 32 t, 64% payload | value |

## SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION (PART 2)

### A3. Manufacturing

This module covers manufacturing and includes all processes linked to production such as storing, mixing, packing and internal transportation. Use of electricity, fuels and auxiliary materials in paint production is accounted for.

Data regarding paint production was provided for the manufacturing site where the coatings are produced in Castelletto, IT and Barcelona, ES.

Primary data and site-specific data was provided for the consumption of utilities and product packaging. The electricity is modelled as 100% renewable using the Ecoinvent 3.10 datasets for solar and wind. For upstream (raw material processes) and downstream processes (application, use, and waste processing) generic data is used when no specific data was available.

The manufacture of production equipment and infrastructure is not included in the system boundary.

### A4. Transport to Regional Distribution Centre and customer

All paint containers are transported from the production facility into a distribution centre and then finally to the customer. As no primary data was available for the transportation distances, the default values from the PEFCR for Decorative Paints were used.

| Transport to RDC and PoS                      |                     | unit  |
|-----------------------------------------------|---------------------|-------|
| Factory to Regional Distribution Centre       | 350                 | km    |
| Regional Distribution Centre to Point of Sale | 370                 | km    |
| Capacity                                      | > 32 t, 64% payload | value |

## SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION (PART 3)

### A5. Application and use

This module includes the environmental aspects and impacts associated with the application and of the paint. It is assumed that no energy is required during the application of this paint. The use of paintbrushes and other appliances used during application are not included. There are some raw materials added in the paint formulations which contain small amounts of solvents. The VOC emissions during application of paint are included in this module.

### C2. Transport to incineration or landfill

This module includes one-way transportation distance of the demolition or sorting site to the dump site.

| Transport of EoL waste     |                     | unit  |
|----------------------------|---------------------|-------|
| Distance for raw materials | 80                  | km    |
| Capacity                   | > 32 t, 64% payload | value |

## SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION (PART 4)

### C3. Waste processing and C4. Disposal

The end of life stage is encompassed in these modules. It is assumed that paint is used as exterior paint and that part of the paint is lost during application. The applied paint is then disposed of with the substrate on which it has been applied.

| EoL                                    |    | unit |
|----------------------------------------|----|------|
| % to Landfill                          | 88 | %    |
| % to Incineration with energy recovery | 12 | %    |

## DECLARATION OF SVHC

None of the substances contained in the product are listed in the "Candidate List of Substances of Very High Concern for authorisation", or they do not exceed the threshold with the European Chemicals Agency.

## REFERENCES

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European Commission, PEFCR Guidance document, - Guidance for the development of Product Environmental Footprint Category Rules (PEFCRs), version 6.3, December 2017.

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