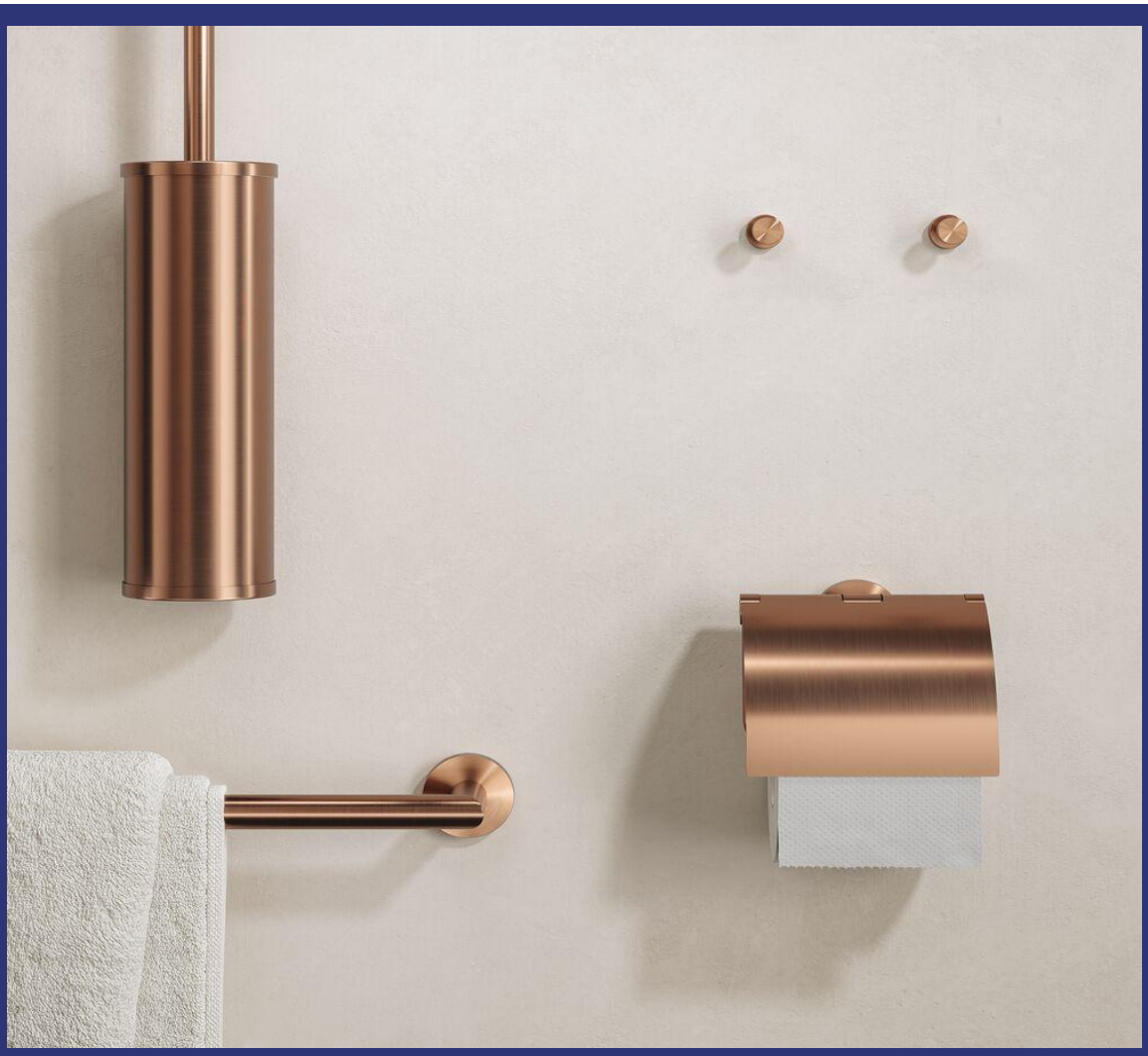
geesa

Environmental
Product
Declaration

According to ISO14025+EN15804+A2

This declaration is for:
GEESA metal-based bathoom accessory and packaging

Provided by:
Coram B.V



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COMPANY INFORMATION

Coram B.V
Hogeweg 87-93
5301 LK
Zaltbommel
Netherlands
+31 (0)88-2970000
geesa@coram.eu
https://geesa.com/en/

MRPI® REGISTRATION

1.1.01241.2026

DATE OF THIS ISSUE

26-6-2026

EXPIRY DATE

26-6-2031

SCOPE OF DECLARATION

This MRPI®-EPD certificate is verified by Gert-Jan Vroege, EcoIntelligence. The LCA study has been done by Liz Adams, Ecomatters B.V. The certificate is based on an LCA-dossier according to ISO14025+EN15804+A2. It is verified according to the 'Verification protocol for MRPI LCA project report & EPD 21th of May 2025, V. 5.2'. 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

GEESA metal-based bathoom accessory and packaging

DECLARED UNIT / FUNCTIONAL UNIT

1 Mass (kg)

DESCRIPTION OF PRODUCT

Stainless steel and brass-based bathoom accessories and their accompanying packaging.

VISUAL PRODUCT

MORE INFORMATION

https://geesa.com/en/products/

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

DETAILED PRODUCT DESCRIPTION

This EPD covers several metal-based bathroom accessories produced by GEESA, for which the product 916511-66, a wall mounted toilet brush holder with a matt black powder coating, acts as the worst-performing representative product. The products included in the EPD were grouped based on function and similarities in their raw material consumption. They are also manufactured at the same site. The representative product was selected based on an evaluation of the environmental performance of all products included within the EPD group. The results of the EPD are presented per 1 kg of product.

Representative product description: Product 916511-66 is a wall mounted toilet brush holder with a matt black powder coating. It is comprised of stainless steel, polypropylene, nylon 6-6 and acrylonitrile butadiene styrene. It is packaged and shipped in cardboard packaging.

Product characteristics (representative product)	Unit	916511-66
Width	cm	82
Length	cm	371
Height	cm	90
Area of product coated	sqm	0,15
Mass (excluding packaging)	Kg	0,549
Mass of packaging	Kg	0,086
Product service life	Years	15

This EPD covers 72 products within the GEESA portfolio. This consists of 12 product variations, each with 6 different coating options. The product characteristics for each of the product variations (excluding the representative product) is provided in the table below.

Products in the group	Unit	916502-xx	916503-xx	916506-xx	916507-xx-45	916507-xx60	916508-xx	916509-xx	916511-xx	916512-xx	916513-xx	916527-xx
Width	cm	66	106	348	498	648	128	150	82	48	20	61
Length	cm	98	58	48	48	48	127	48	371	48	20	172
Height	cm	102	122	75	75	75	51	82	90	130	30	117
Area of product coated	sqm	0,029	0,029	0,058	0,068	0,077	0,08	0,03	0,15	0,026	0,002	0,086
Mass (excluding packaging)	Kg	0,375	0,375	0,04	0,47	0,544	0,439	0,225	0,549	0,17	0,04	0,527
Mass of packaging	Kg	0,036	0,036	0,086	0,096	0,12	0,084	0,036	0,086	0,036	0,008	0,044
Product service life	Years	15	15	15	15	15	15	15	15	15	15	2

Products in the group (continued)	Unit	916545-xx
Width	cm	50
Length	cm	50
Height	cm	40
Area of product coated	sqm	0,021
Mass (excluding packaging)	Kg	0,154
Mass of packaging	Kg	0,015
Product service life	Years	15

Overarching product group (uncoated)	Chrome	Brushed Stainless steel	Powder coating (Matt black)	PVD - Gold	PVD - Black	PVD - Bronze	Product description
916502-xx	916502-02	916502-05	916502-06	916502-07	916502-09	916502-10	Tumbler holder, wall mounted
916503-xx	916503-02	916503-05	916503-06	916503-07	916503-09	916503-10	Soap holder, wall mounted
916506-xx	916506-02	916506-05	916506-06	916506-07	916506-09	916506-10	Grab rail, wall mounted
916507-xx-xx	916507-02-45	916507-05-45	916507-06-45	916507-07-45	916507-09-45	916507-10-45	Towel holder 45 cm, wall mounted
916507-xx-xx	916507-02-60	916507-05-60	916507-06-60	916507-07-60	916507-09-60	916507-10- 60	Towel holder 60 cm, wall mounted
916508-xx	916508-02	916508-05	916508-06	916508-07	916508-09	916508-10	Toilet roll holder with lid, wall mounted
916509-xx	916509-02	916509-05	916509-06	916509-07	916509-09	916509-10	Toilet roll holder, wall mounted

Overarching product group (uncoated)	Chrome	Brushed Stainless steel	Powder coating (Matt black)	PVD - Gold	PVD - Black	PVD - Bronze	Product description
916511-xx	916511-02	916511-05	916511-66*	916511-07	916511-09	916511-10	Toilet brush holder, wall mounted
916512-xx	916512-02	916512-05	916512-06	916512-07	916512-09	916512-10	Spare toilet roll holder
916513-xx	916513-02	916513-05	916513-06	916513-07	916513-09	916513-10	Hook small
916527-xx	916527-02	916527-05	916527-06	916527-07	916527-09	916527-10	Soap dispenser, wall mounted
916545-xx	916545-02	916545-05	916545-06	916545-07	916545-09	916545-10	Hook large

Component (> 1%)	(kg)
Stainless steel	35,2 kg
Plastic (Product)	18,1 kg
Plastic (Packaging)	1,0 kg
Cardboard and paper (Packaging)	7,0 kg

Biogenic carbon content	kg C
Biogenic carbon content in product	0
Biogenic carbon content in accompanying packaging	0,083
Note: 1 kg biogenic carbon (kg C) is equivalent to 44/12 kg of CO2.	

SCOPE AND TYPE

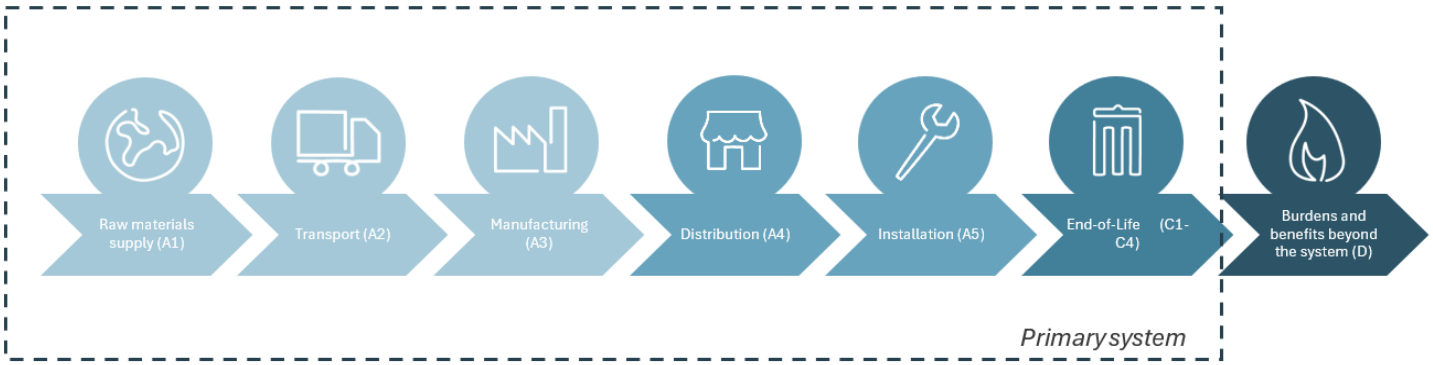
The system boundaries of the LCA is defined as Cradle-to-Gate with the addition of distribution and construction (A4 and A5) and modules C and D. All major steps per declared module, from the extraction of natural resources to the final disposal of the product, are included in the scope of the study. The EPD is representative of products produced in Guangdong, China and sold within Europe. Likewise, the product End-of-Life is modelled within the European context. The results are calculated using the characterisation method EN15804+A2 (2020) and electricity is modelled using a market-based approach owing to production occuring outside of Europe.

The software LCA for Experts (GaBi) 10.9.1.17 is used to perform the LCA and background processes are sourced from the Ecoinvent 3.11 database (2025). The validity of the EPD is in correspondence with the specifications of the LCA project report.

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

The EPD presents the worst-performing product within the group 916511-66 as the representative based on the environmental impact category 'Climate Change - Total' and its share of annual production volumes (confidential).This EPD covers 12 different products produced by Coram under the GEESA brand, each with 6 variations of coating. The representative product is modelled as coated with a black powder coating. All products in the group are manufactured at the same location.

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.	4,02E+00	8,88E-03	1,15E+00	5,18E+00	3,59E-02	4,50E-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	5,64E-03	1,00E-01	3,25E-01	-1,15E+00
GWP-fossil	kg CO2 eq.	4,12E+00	8,88E-03	1,14E+00	5,27E+00	3,58E-02	2,21E-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	5,64E-03	8,91E-02	3,25E-01	-1,14E+00
GWP-biogenic	kg CO2 eq.	-1,06E-01	2,97E-06	4,13E-03	-1,01E-01	1,20E-05	2,30E-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	1,89E-06	1,13E-02	2,60E-05	-1,07E-02
GWP-luluc	kg CO2 eq.	5,37E-03	4,02E-06	3,30E-03	8,68E-03	1,62E-05	3,19E-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	2,55E-06	6,96E-05	3,13E-06	-1,20E-03
ODP	kg CFC11 eq.	5,13E-08	1,20E-10	1,97E-08	7,12E-08	4,83E-10	1,56E-09	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	7,60E-11	5,87E-10	1,29E-10	-1,49E-08
AP	mol H+ eq.	2,07E-02	3,09E-05	2,04E-02	4,12E-02	1,25E-04	2,69E-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	1,96E-05	2,01E-04	8,06E-05	-5,76E-03
EP-fresh water	kg P eq.	3,08E-03	9,64E-07	1,68E-03	4,76E-03	3,89E-06	1,01E-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	6,12E-07	2,39E-05	1,16E-06	-9,44E-04
EP-marine	kg N eq.	4,39E-03	1,00E-05	1,77E-03	6,17E-03	4,04E-05	2,00E-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	6,36E-06	9,02E-05	1,78E-04	-1,10E-03
EP-terrestrial	mol N eq.	4,14E-02	1,08E-04	1,96E-02	6,11E-02	4,37E-04	8,17E-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	6,88E-05	4,64E-04	3,85E-04	-1,12E-02
POCP	kg NMVOC eq.	1,51E-02	4,44E-05	6,68E-03	2,18E-02	1,79E-04	3,17E-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	2,82E-05	1,49E-04	1,01E-04	-4,02E-03
ADP-minerals & metals	kg Sb eq.	7,80E-05	2,45E-08	2,44E-04	3,22E-04	9,90E-08	2,31E-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	1,56E-08	4,82E-07	1,73E-08	-2,47E-05
ADP-fossil	MJ, net calorific value	7,01E+01	1,31E-01	1,76E+01	8,78E+01	5,27E-01	7,35E-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	8,29E-02	6,77E-01	8,95E-02	-1,93E+01
WDP	m3 world eq. Deprived	1,45E+00	8,30E-04	2,58E-01	1,71E+00	3,35E-03	4,42E-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	5,27E-04	1,57E-02	5,81E-03	-3,98E-01

GWP-total	=	Global Warming Potential total
GWP-fossil	=	Global Warming Potential fossil fuels
GWP-biogenic	=	Global Warming Potential biogenictotal
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	Disease inci-dence	2,87E-07	6,71E-10	7,39E-08	3,61E-07	2,71E-09	3,83E-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	4,26E-10	1,53E-09	5,34E-10	-7,79E-08
IRP	kBq U235 eq.	2,29E-01	1,10E-04	7,34E-02	3,03E-01	4,43E-04	2,92E-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	6,97E-05	1,40E-02	1,21E-04	-8,95E-02
ETP-fw	CTUe	4,64E+01	2,07E-02	3,05E+01	7,69E+01	8,34E-02	2,88E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,31E-02	2,78E-01	8,39E-01	-1,35E+01
HTP-c	CTUh	4,03E-09	1,56E-12	2,65E-09	6,68E-09	6,28E-12	4,11E-12	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	9,89E-13	2,57E-11	2,92E-11	-1,23E-09
HTP-nc	CTUh	6,71E-08	6,90E-11	1,87E-07	2,54E-07	2,78E-10	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	4,38E-11	7,64E-10	1,02E-09	-1,91E-08
SQP	-	3,40E+01	1,26E-01	8,53E+00	4,26E+01	5,08E-01	6,04E-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	7,99E-02	5,83E-01	7,28E-02	-5,29E+00

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, cancer [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	2,61E+00	2,07E-04	2,05E-01	2,81E+00	8,34E-04	9,13E-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	1,31E-04	1,87E-03	4,84E-03	-8,46E-01
NHWD	kg	4,78E+00	1,13E-03	7,46E+00	1,22E+01	4,57E-03	5,41E-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	7,19E-04	8,22E-02	3,11E-01	-1,44E+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	6,25E-02	6,25E-02	0,00E+00	9,71E-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	5,35E-01	0,00E+00	0,00E+00
MER	kg	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,32E-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	1,34E-01	0,00E+00
EEE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	4,20E-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	5,25E-01	0,00E+00
ETE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	5,07E-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	1,03E+00	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	1,17E+01	1,77E-03	1,82E+00	1,35E+01	7,13E-03	3,38E-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	1,12E-03	1,39E-01	2,77E-03	-2,87E+00
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	1,17E+01	1,77E-03	1,82E+00	1,35E+01	7,13E-03	3,38E-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	1,12E-03	1,39E-01	2,77E-03	-2,87E+00
PENRE	MJ	7,01E+01	1,31E-01	1,76E+01	8,78E+01	5,27E-01	7,35E-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	8,29E-02	6,77E-01	8,95E-02	-1,93E+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	7,01E+01	1,31E-01	1,76E+01	8,78E+01	5,27E-01	7,35E-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	8,29E-02	6,77E-01	8,95E-02	-1,93E+01
SM	kg	3,68E-01	0,00E+00	0,00E+00	3,68E-01	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
NRSF	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	3,37E-02	1,93E-05	6,01E-03	3,98E-02	7,80E-05	1,03E-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	1,23E-05	3,66E-04	1,35E-04	-9,26E-03

PERE = Use of renewable primary energy excluding renewable primary energy used as raw materials
PERM = Use of renewable primary 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
NRSF = Use of non-renewable secondary fuels
FW = Use of net fresh water

CALCULATION RULES

Data quality and data collection period
Data quality requirements follow EN15804+A2:2019 Annex E, Table E.2. Used datasets are complete according to the system boundary and are as current as possible. Foreground data is of reference period 2025. Processes used in the background modelling are taken from Ecoinvent 3.11 (cut-off by classification), the most recent version of the widely used LCI database (at the time of the study) and are consistent with the foreground modelling in system limits and allocation procedures. The technological and geographical coverage reflects the physical reality as far as possible taking into account the technology mix, location, and representativeness of technologies, input materials, and input energies for the region. Data quality is assessed as good on average and adequate to the goal and scope of the study.

Cut-off criteria
A cut-off was applied to Module A5 – Construction, where the energy required for tools during installation was not considered due to its expected minimal impact to the total environmental impact. Apart from this, no further cut-offs were intentionally applied to the inputs and outputs of the models. Cut-off within the background processes (Ecoinvent v.3.11 datasets) is according to the respective methodologies (see documentation of the relevant processes (Wernet et al., 2016)). The Ecoinvent database does not operate with cut-off levels for minor inputs or outputs. In principle, all known inputs and outputs are recorded as such.

Allocation procedure
To allocate the emissions, inputs and outputs from the manufacturing process, mass allocation is followed. This approach assigns the utilities needed to produce 1kg of the product based on the utilities needed to produce all Coram products included in the study in the reference period of 2025 . This approach is applied as it is not possible to sub-divide the manufacturing site data into a more detailed level.

The product stage is reported in life cycle stages A1-A3. This life cycle stage includes the extraction and processing of raw materials for the product and the packaging, their transportation to the production site by road, and the manufacturing process. The manufacturing stage (A3) includes all processes related to assembling the product, including energy consumption and waste treatment, for which specific data is available. Electricity consumption is modelled using primary data on the amount and with a market dataset for the Chinese electricity mix taken from Ecoinvent 3.11. Module A4 includes transport of the product from China to the main distribution warehouse in Belgium, and then further to customers in Europe. A cut-off is applied to Module A5 due to the need for no, or very small, additional energy inputs during installation. The use stage is not applicable as the products under study do not require any energy, maintenance or repair to be used. For the end-of-life stage (C), a scenario is used which is based available literature from two leading industry associations, Plastics Europe (2024) and EUROFER (2023). To calculate the benefits and loads beyond the system boundaries (D), Formula D.6. from EN1504+A2 is applied.

Finishing of product
Primary data is not provided for the manufacturing site at which product finishing occurs, or (if applicable) the quantity of finishing material required for use on the product. The calculation therefore assumes a linear relationship between surface area for coating and product weight in order to calculate finishing quantity required.

SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION

Transport of raw materials (A2)
Transport of raw materials (as prefabricated components) was modelled based on primary data provided by Coram. A weighted average transport distance was calculated and applied to all raw materials within the study. Transport is completed via truck.

Transport within manufacturing (A3)
Transport from the main manufacturing site, to the finishing site, was modelled using primary data on distance provided by Coram. Transport is completed via truck.

Transport to end user (A4)
Transport from China to Belgium, where Coram's main distribution centre is located, was modelled based on calculated shipping distances between the two closest ports. Transport is completed via container ship. Transport from Belgium to customers in Europe is modelled using an weighted average of shipping quantities and distance to countries delivered to.

Transport scenario	Distance	Unit	Mode of transport
Transport of raw materials	79,9	km	Lorry >32
Transport to finishing site	84	km	Lorry >32
Transport from manufacture to distribution centre	18216,27	km	Sea, container ship
Transport from manufacture to distribution centre	78,2	km	Lorry >32
Transport to customer	292,5	km	Lorry >32

End-of-Life
End-of-Life (EoL) fate of manufacturing waste is modelled as per primary data provided by the manufacturing site. For the EoL of the product and it's packaging, no primary data was available. Therefore EoL scenarios were modelled using best available data from Plastics Europe (2024), EUROFER (2023) and Eurostat (2025).

End-of-Life Fate	Reuse	Recycing	Landfill	Incineration with energy recovery	Unit
Product - Plastic	0	27	23	50	%
Product - Metal	0	88	12	0	%
Packaging - Plastic	0	42	23	35	%
Packaging - Paper and Cardboard	0	87	5	8	%

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.

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