Environmental
Product
Declaration

According to ISO14025+EN15804 A2 (+indicators A1)

This declaration is for:
IKO powerflex 5000 AD/F F

Provided by:
IKO n.v.

MRPI® registration:
1.1.01227.2026

Program operator:
Stichting MRPI®
Publisher:
Stichting MRPI®
www.mrpi.nl

Date of first issue:
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25-11-2030

COMPANY INFORMATION

IKO n.v.
D`Herbouvillekaai 80
B-2020
Antwerpen
Belgium
0032 3 248 3000

be.iko.com

MRPI® REGISTRATION

1.1.01227.2026

DATE OF THIS ISSUE

25-11-2025

EXPIRY DATE

25-11-2030

SCOPE OF DECLARATION

This MRPI®-EPD certificate is verified by Gert-Jan Vroege, Eco Intelligence. The LCA study has been done by Steven Simons, SGS INTRON B.V.. The certificate is based on an LCA-dossier according to ISO14025+EN15804 A2 (+indicators A1). 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

IKO powerflex 5000 AD/F F

DECLARED UNIT / FUNCTIONAL UNIT

1 Area (m2)

DESCRIPTION OF PRODUCT

IKO powerflex 5000 AD/F F is a part of a roofing membrane system and placed on a roof as a protective layer to make the roof waterproof and protect the roof from various elements.

VISUAL PRODUCT

MORE INFORMATION

https://eu.iko.com/nl-nl/productbladen/

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 (+indicators A1) Internal: External: X
	Third party verifier: Gert-Jan Vroege, Eco Intelligence
	[1] PCR = Product Category Rules

DETAILED PRODUCT DESCRIPTION

Product: IKO powerflex 5000 AD/F F is a part of a roofing membrane system and placed on a roof as a protective layer to make the roof waterproof and protect the roof from various elements.

Production (A1-A3): Bituminous waterproofing membranes are produced by a continuous process. Raw materials (bitumen and polymers) are mixed separately at a specific range of temperature and successively reinforced with polyester fleece or glass mat (glass mat, glass grid, glass fabric) by impregnation. After calendaring and cooling, the membrane can be finished for practicality and aesthetic reasons by means of different alternative materials, such us polypropylene films, (colored) slates, etc. Membranes are installed on many different type of building roofs as waterproofing, either, as a single or multilayer, depending on the type of selected product.

Reference service life: 50 years

The energy processes used in the calculation are listed in the table below. The process used for the energy in Belgium was: Electricity, low voltage {BE}| market for | Cut-off, U.

Global warming potential of 1 kWh energy	Process	kg CO2eq
Production energy: Belgium (EcoInvent 3.6)	Electricity, low voltage {BE}| market for | Cut-off, U	0,244
Production energy: Belgium (EcoInvent 3.9.1)	Electricity, low voltage {BE}| market for | Cut-off, U	0,209

Biogenic carbon content	kg C
Biogenic carbon content in product	0
Biogenic carbon content in accompanying packaging	0,0194
Note: 1 kg biogenic carbon (kg C) is equivalent to 44/12 kg of CO2	

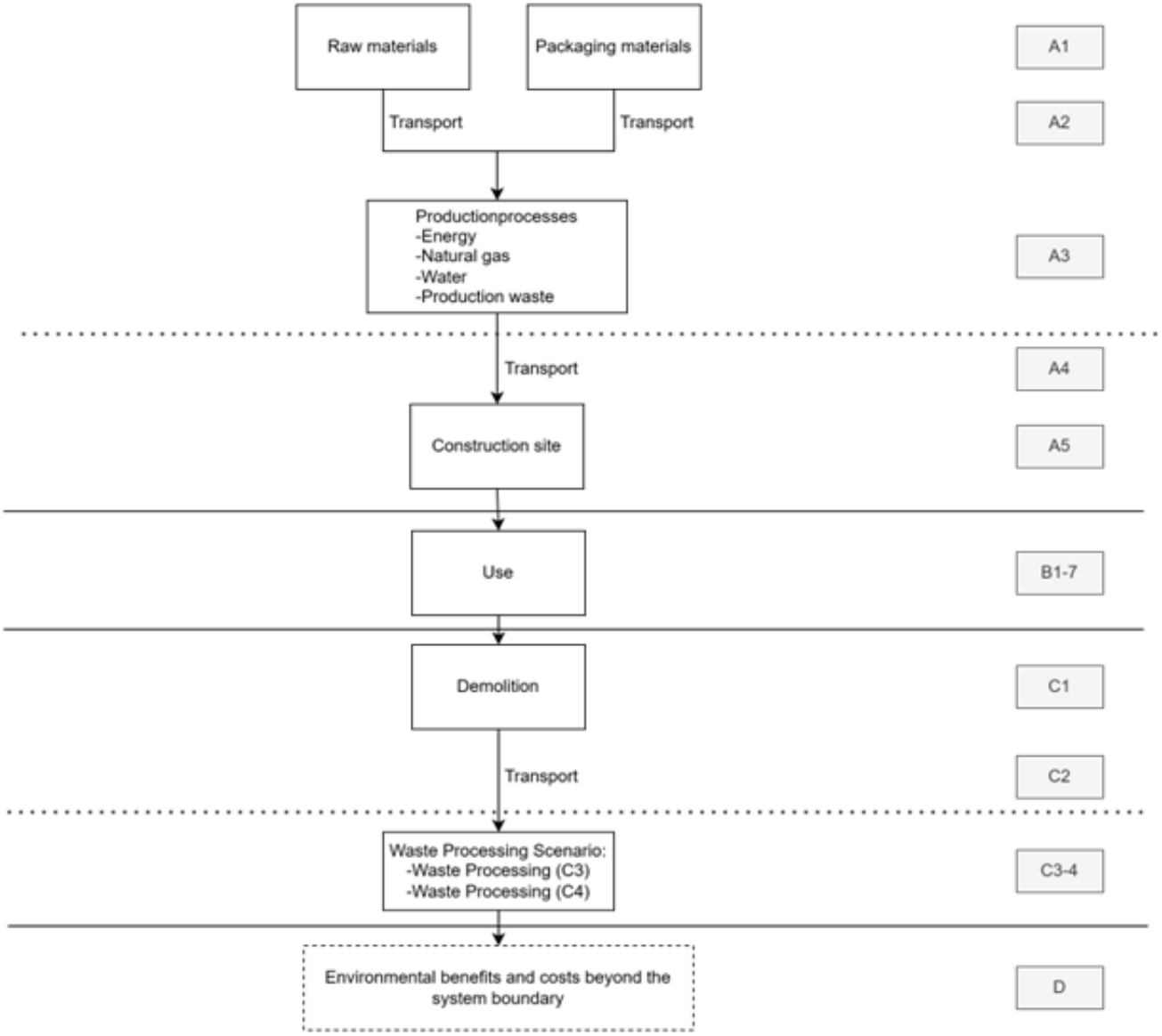
SCOPE AND TYPE

The LCA for the IKO powerflex 5000 AD/F F includes the entire life cycle. All major steps from the extraction of raw materials to the end-of-life of the product are included in the scope of the study. This EPD is for IKO powerflex 5000 AD/F F, part of a roofing membrane. The roofing membrane is produced by IKO n.v.. The main production location is Antwerpen Belgium. The end-of-life scenario is according to the standard NMD waste processing (5% landfill, 90% incineration and 5% recycling). The LCA is produced with SimaPro v10 software and background database is Ecoinvent 3.6 for set A1 and Ecoinvent 3.9.1 for set A2.

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	X	X	X	X	X	ND	ND	X	X	X	X	X

X = Modules Assessed

ND = Not Declared



REPRESENTATIVENESS

The EPD is representative for IKO powerflex 5000 AD/F F a part of a roofing membrane which is manufactured in Antwerp, Belgium.

ENVIRONMENTAL IMPACT per functional unit or declared unit (indicators A1)

	Unit	A1	A2	A3	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
ADPE	kg Sb eq.	1,55E-04	5,93E-06	1,25E-06	1,62E-04	2,63E-06	5,12E-06	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	2,76E-06	3,30E-06	3,16E-08	-1,81E-06
ADPF	MJ	1,29E+02	3,56E+00	7,75E+00	1,40E+02	1,57E+00	5,22E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	1,64E+00	3,47E+00	7,00E-02	-9,94E+01
GWP	kg CO2 eq.	2,19E+00	2,34E-01	3,59E-01	2,79E+00	1,03E-01	5,29E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	1,08E-01	1,17E+01	3,52E-02	-5,66E+00
ODP	kg CFC11 eq.	1,45E-06	4,15E-08	5,96E-08	1,55E-06	1,83E-08	6,00E-08	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	1,92E-08	5,78E-08	7,29E-10	-7,08E-07
POCP	kg ethene eq.	4,22E-03	1,44E-04	6,34E-05	4,43E-03	6,22E-05	1,78E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	6,52E-05	3,09E-04	8,64E-06	-9,23E-04
AP	kg SO2 eq.	1,52E-02	1,10E-03	3,77E-04	1,66E-02	4,53E-04	7,61E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	4,75E-04	2,56E-03	3,66E-05	-4,06E-03
EP	kg (PO4) 3 eq.	2,34E-03	2,09E-04	5,60E-05	2,61E-03	8,91E-05	1,25E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	9,33E-05	4,55E-04	1,64E-05	-5,89E-04

Toxicity indicators and ECI (Dutch market)

HTP	kg DCB eq.	1,49E+00	9,91E-02	4,53E-02	1,63E+00	4,34E-02	8,14E-02	6,26E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	4,55E-02	3,24E-01	1,72E-03	-3,29E-01
FAETP	kg DCB eq.	5,41E-02	2,87E-03	8,60E-04	5,79E-02	1,27E-03	2,93E-03	3,13E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	1,33E-03	1,49E-02	3,90E-04	-4,48E-03
MAETP	kg DCB eq.	1,61E+02	1,04E+01	2,81E+00	1,74E+02	4,56E+00	9,68E+00	1,34E+01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	4,78E+00	3,36E+01	4,40E-01	-1,85E+01
TETP	kg DCB eq.	5,99E-03	3,49E-04	1,12E-03	7,46E-03	1,53E-04	3,28E-04	4,30E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	1,61E-04	8,90E-04	5,10E-06	-9,92E-04
ECI	euro	3,61E-01	2,86E-02	2,50E-02	4,15E-01	1,24E-02	3,98E-02	7,10E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	1,30E-02	6,31E-01	2,29E-03	-3,46E-01
ADPF	kg Sb eq.	6,05E-02	1,72E-03	2,91E-03	6,52E-02	7,58E-04	2,44E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	7,95E-04	1,49E-03	3,37E-05	-5,35E-02

ADPE = Abiotic Depletion Potential for non-fossil resources
ADPF = Abiotic Depletion Potential for fossil resources
GWP = Global Warming Potential
ODP = Depletion potential of the stratospheric ozone layer
POCP = Formation potential of tropospheric ozone photochemical oxidants
AP = Acidification Potential of land and water
EP = Eutrophication Potential
HTP = Human Toxicity Potential
FAETP = Fresh water aquatic ecotoxicity potential
MAETP = Marine aquatic ecotoxicity potential
TETP = Terrestrial ecotoxicity potential
ECI = Environmental Cost Indicator
ADPF = Abiotic Depletion Potential for fossil resources

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.	2,85E+00	2,61E-01	3,72E-01	3,49E+00	1,15E-01	6,36E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	1,20E-01	1,17E+01	3,54E-02	-5,97E+00
GWP-fossil	kg CO2 eq.	2,88E+00	2,60E-01	3,70E-01	3,51E+00	1,14E-01	5,58E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	1,20E-01	1,17E+01	3,54E-02	-5,97E+00
GWP-biogenic	kg CO2 eq.	-3,10E-02	3,99E-04	1,23E-03	-2,94E-02	1,78E-04	7,76E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	1,87E-04	2,40E-03	2,30E-05	-1,23E-03
GWP-luluc	kg CO2 eq.	2,62E-03	9,16E-04	1,94E-04	3,73E-03	4,08E-04	1,52E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	4,27E-04	2,38E-04	2,53E-06	-4,38E-04
ODP	kg CFC11 eq.	2,32E-06	4,61E-09	1,60E-08	2,34E-06	2,03E-09	7,35E-08	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	2,13E-09	3,76E-08	7,72E-11	-3,18E-07
AP	mol H+ eq.	1,41E-02	1,33E-03	4,77E-04	1,59E-02	5,48E-04	7,68E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	5,74E-04	3,32E-03	4,25E-05	-4,23E-03
EP-fresh water	kg P eq.	8,37E-05	2,56E-06	2,29E-06	8,86E-05	1,14E-06	3,56E-06	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	1,19E-06	6,76E-06	5,40E-08	-1,13E-05
EP-marine	kg N eq.	2,81E-03	4,92E-04	1,25E-04	3,43E-03	2,08E-04	2,00E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	2,18E-04	1,10E-03	3,54E-05	-1,54E-03
EP-terrestrial	mol N eq.	3,00E-02	5,26E-03	1,41E-03	3,66E-02	2,22E-03	2,16E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	2,33E-03	1,22E-02	9,42E-05	-1,68E-02
POCP	kg NMVOC eq.	2,40E-02	1,77E-03	7,03E-04	2,65E-02	7,58E-04	1,18E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	7,94E-04	3,41E-03	4,16E-05	-9,55E-03
ADP-minerals & metals	kg Sb eq.	1,23E-05	8,06E-07	1,66E-06	1,48E-05	3,58E-07	6,69E-07	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	3,75E-07	1,42E-06	7,40E-09	-1,55E-06
ADP-fossil	MJ, net calorific value	1,32E+02	3,71E+00	7,37E+00	1,43E+02	1,64E+00	5,43E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	1,72E+00	3,43E+00	7,15E-02	-9,60E+01
WDP	m3 world eq. Deprived	4,88E-01	2,01E-02	6,59E-02	5,74E-01	8,94E-03	2,56E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	9,37E-03	9,05E-02	2,97E-03	-4,59E-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	1,28E-07	2,54E-08	3,47E-09	1,56E-07	1,13E-08	8,31E-09	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	1,18E-08	2,86E-08	5,09E-10	-2,21E-08
IRP	kBq U235 eq.	6,48E-02	1,44E-03	3,64E-02	1,03E-01	6,39E-04	3,92E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	6,70E-04	1,39E-02	5,11E-05	-8,89E-03
ETP-fw	CTUe	5,74E+01	2,73E+00	5,29E-01	6,07E+01	1,21E+00	2,40E+00	5,89E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	1,27E+00	2,17E+00	7,31E-02	-4,65E+00
HTP-c	CTUh	1,40E-09	1,37E-10	9,74E-11	1,64E-09	6,06E-11	1,40E-10	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	6,35E-11	1,71E-09	2,00E-12	-7,22E-10
HTP-nc	CTUh	2,57E-08	2,96E-09	2,17E-09	3,09E-08	1,32E-09	1,70E-09	7,47E-10	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	1,38E-09	8,15E-09	6,45E-11	-6,68E-09
SQP	-	1,76E+01	2,90E+00	7,31E-01	2,13E+01	1,29E+00	8,14E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	1,35E+00	1,93E+00	1,60E-01	-1,27E+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	1,48E-03	2,36E-05	2,42E-05	1,53E-03	1,04E-05	5,11E-05	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	1,09E-05	1,18E-05	3,50E-07	-4,12E-04
NHWD	kg	3,55E-01	2,43E-01	1,10E-01	7,08E-01	1,08E-01	4,78E-02	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	1,13E-01	3,40E-01	2,76E-01	-1,06E-01
RWD	kg	4,69E-05	8,45E-07	3,10E-05	7,88E-05	3,75E-07	2,97E-06	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	3,93E-07	1,10E-05	3,42E-08	-6,10E-06
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	ND	ND	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	8,25E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	0,00E+00	2,75E-01	0,00E+00	0,00E+00
MER	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	ND	ND	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
EEE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	8,05E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	0,00E+00	2,68E+01	0,00E+00	0,00E+00
ETE	MJ	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	1,39E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	ND	ND	0,00E+00	0,00E+00	4,62E+01	0,00E+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	2,23E+00	5,22E-02	4,17E-01	2,70E+00	2,32E-02	1,07E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	INA	INA	0,00E+00	2,43E-02	2,84E-01	1,57E-03	-3,48E-01
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	INA	INA	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PERT	MJ	2,23E+00	5,22E-02	4,17E-01	2,70E+00	2,32E-02	1,07E-01	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	INA	INA	0,00E+00	2,43E-02	2,84E-01	1,57E-03	-3,48E-01
PENRE	MJ	1,32E+02	3,72E+00	7,37E+00	1,43E+02	1,64E+00	5,43E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	INA	INA	0,00E+00	1,72E+00	3,43E+00	7,15E-02	-9,60E+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	INA	INA	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
PENRT	MJ	1,32E+02	3,72E+00	7,37E+00	1,43E+02	1,64E+00	5,43E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	INA	INA	0,00E+00	1,72E+00	3,43E+00	7,15E-02	-9,60E+01
SM	kg	9,81E-02	0,00E+00	0,00E+00	9,81E-02	0,00E+00	2,94E-03	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	INA	INA	0,00E+00	0,00E+00	0,00E+00	0,00E+00	-9,49E-02
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	INA	INA	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	INA	INA	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00
FW	m3	1,72E-02	8,91E-04	1,80E-03	1,99E-02	3,96E-04	9,35E-04	0,00E+00	0,00E+00	0,00E+00	0,00E+00	0,00E+00	INA	INA	0,00E+00	4,15E-04	4,89E-03	7,34E-05	-7,24E-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
NSRF = Use of non-renewable secondary fuels
FW = Use of net fresh water

CALCULATION RULES

Data quality requirements follow EN15804+A2:2019. Data is of reference period 2023, representing data for the production of one m2 IKO powerflex 5000 AD/F F. Processes used in the background modelling are referring to Ecoinvent 3.6 and 3.9.1. The technological and geographical coverage reflects the physical reality as far as possible. Data quality is assessed as good on average and adequate to the goal and scope of the study. Cut-off criteria and allocation procedures: The only materials excluded from the calculation were wood packaging that is reused serveral times. No other cut-offs or allocation procedures were intentionally applied to inputs and outputs within the system boundaries in the models.

SCENARIOS AND ADDITIONAL TECHNICAL INFORMATION

The product stage, A1-A3, includes the extraction and processing of raw materials for the product and the packaging, their transportation to the production site by truck and ship. Electricity consumption is modelled using primary data on the amount and a dataset for normal belgium grid mix.

The installation stage (A4-A5) includes transport of the roofing membrane to the installation site, and the materials and energy required to install the roofing membrane, also including treatment of waste from installation materials and packaging excluding wood that was reused several times.

The use phase (B) includes the leaching.

The end-of-life stage (C) is according to the standard NMD waste processing (5% landfill, 90% incineration and 5% recycling). Default waste transport distance is 100 km for landfill waste and 150 km for incineration. The materials that are recycled have the same distance as in A4: 136 km.

IKO's two-layer waterproofing system has a technical service life of 50 years, based on studies and lifetime evaluations for IKO SBS-modified bitumen membranes with similar technical properties and from similar raw materials, conducted by Bunch Bygningsfysik. The evaluations are based on visual inspection of roofs made with IKO roofing membranes from 1995-2000, discussions with owners of the buildings and laboratory tests made for specimens taken from the roofs. The technical service life is applicable in Northern Europe including Finland, Norway, Sweden, Denmark, Iceland and the Baltic countries, which are located in the Northern temperate belt where studies and evaluations have been conducted. The Northern temperate belt includes temperate coastal climate and temperate continental climate.

DECLARATION OF SVHC

No substances that are listed in the latest "Candidate List of Substances of Very High Concern for authorisation" are included in the product that exceed the limit for registration.

REFERENCES

Stichting nationale Milieudatabase, Bepalingsmethode Milieuprestatie Bouwwerken versie 1.2.

EN 15804:2012+A2:2019, Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products, 2019.

ISO, ISO 14025:2006 Environmental labels and declarations — Type III environmental declarations — Principles and procedures, 2006.

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