

Environmental Product Declaration (EPD)

Short version

Declaration code: EPD-BÄ-3.2



ISO-Chemie GmbH

Sealing systems

Sealing tapes made of polyurethane and polyethylene



Grundlagen:

DIN EN ISO 14025
EN15804

Company -EPD
Environmental
Product Declaration

Date of issue:
07.04.2022

Next revision:
07.04.2027



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LCA practitioner	ift Rosenheim GmbH Theodor-Gietl-Straße 7-9 D-83026 Rosenheim		
Deklaration holder	ISO-Chemie GmbH Röntgenstraße 12 73431 Aalen		
Deklaration code	EPD-BÄ-3.2		
Designation of the declared product	Sealing tapes made of polyurethane and polyethylene		
Scope	Sealing tapes for professional sealing of the connection joint between components, such as windows / doors / facades / lightweight constructions / WDVS etc.		
Basis	This EPD was prepared on the basis of EN ISO 14025:2011 and DIN EN 15804:2012+A2:2019. In addition, the "Allgemeiner Leitfaden zur Erstellung von Typ III Umweltproduktdeklarationen" (General guideline for elaboration of Type III Environmental Product Declarations) applies. The Declaration is based on the PCR Documents "PCR Teil A" PCR-A-0.3:2018 and "Baukörperanschlüsse und Abdichtungssysteme " PCR-BA-2.3:2018.		
Validity	Date of issue: 07.04.2022	Last revision: 07.04.2022	Next revision: 07.04.2027
	This verified company Environmental Product Declaration applies solely to the specified products and is valid for a period of 5 years from the date of issue according to EN 15804.		
LCA Basis	The LCA was prepared in accordance with EN ISO 14040 and EN ISO 14044. The base data include both data collected at ISO-Chemie GmbH and generic data from the „GaBi 10“ database. The Life Cycle Assessment was calculated through the life cycle „cradle to gate with options“ taking into account all upstream chains such as raw material exploitation.		
Notes on publication	The "Conditions and Guidance on the Use of ift Test Documents" apply. The declaration holder assumes full liability for the underlying data, certificates and verifications.		
			
Christian Kehrer Director of ift Certification and Surveillance Body		Dr. Torsten Mielecke Chairman of committee of experts ift EPD and PCR	Xaver Hilz Independent Verifier

Note: Use the extended version of the EPD for further information..



Results per 1 rm sealing tapes made of PU and PE

	Unit	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Environmental impacts																		
GWP-t	kg CO ₂ -eq.	0,12	1,21E-04	1,78E-02	2,00E-03	1,22E-02	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	8,54E-05	0,11	5,75E-05	-5,79E-02
GWP-f	kg CO ₂ -eq.	0,13	1,20E-04	1,77E-02	1,98E-03	1,22E-02	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	8,48E-05	0,11	5,90E-05	-5,76E-02
GWP-b	kg CO ₂ -eq..	-7,53E-03	-9,01E-07	1,14E-04	-2,36E-06	7,74E-07	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	-1,01E-07	4,75E-04	-1,71E-06	-3,23E-04
GWP-l	kg CO ₂ -eq.	7,77E-05	1,72E-06	1,15E-05	1,62E-05	4,66E-07	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	6,94E-07	7,94E-05	1,73E-07	-3,28E-05
ODP	kg CFC-11-eq.	8,37E-11	1,32E-17	-5,35E-16	3,91E-19	3,76E-18	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	1,68E-20	1,34E-15	2,29E-19	-4,78E-16
AP	mol H ⁺ -eq.	3,58E-04	4,33E-07	1,14E-05	2,76E-06	1,57E-06	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	1,06E-07	1,31E-04	4,20E-07	-1,01E-04
EP-fw	kg P-eq.	1,43E-06	5,53E-10	5,37E-08	5,88E-09	5,82E-10	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	2,52E-10	1,50E-07	9,90E-11	-7,60E-08
EP-m	kg N-eq.	7,69E-05	1,15E-07	4,27E-06	1,02E-06	4,26E-07	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	3,74E-08	3,22E-05	1,09E-07	-2,34E-05
EP-t	mol N-eq.	8,26E-04	1,29E-06	4,80E-05	1,18E-05	7,12E-06	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	4,35E-07	3,62E-04	1,20E-06	-2,55E-04
POCP	kg NMVOC-eq.	2,47E-04	3,16E-07	1,07E-05	2,44E-06	1,23E-06	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	9,29E-08	8,68E-05	3,31E-07	-6,88E-05
ADPF*2	MJ	2,91	1,60E-03	0,14	2,64E-02	4,78E-03	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	1,13E-03	1,00	7,83E-04	-1,23
ADPE*2	kg Sb-eq.	3,38E-07	9,89E-12	-3,56E-09	1,76E-10	5,45E-11	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	7,53E-12	1,64E-08	5,57E-12	-8,95E-09
WDP*2	m ³ world-eq. deprived	6,58E-02	3,27E-06	1,02E-03	1,84E-05	1,27E-03	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	7,88E-07	1,43E-02	6,33E-06	-1,26E-03
Use of ressources																		
PERE	MJ	0,29	1,05E-04	-1,87E-02	1,52E-03	1,04E-03	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	6,51E-05	0,52	7,25E-03	-0,15
PERM	MJ	7,15E-02	0,00	0,00	0,00	0,00	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	0,00	-6,43E-02	-7,15E-03	0,00
PERT	MJ	0,36	1,05E-04	-1,87E-02	1,52E-03	1,04E-03	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	6,51E-05	0,46	1,05E-04	-0,15
PENRE	MJ	2,30	1,61E-03	1,41E-01	2,65E-02	0,11	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	1,14E-03	1,46	5,22E-02	-1,23
PENRM	MJ	0,61	0,00	0,00	0,00	-0,10	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	0,00	-0,46	-5,14E-02	0,00
PENRT	MJ	2,91	1,61E-03	1,41E-01	2,65E-02	4,78E-03	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	1,14E-03	1,00	7,83E-04	-1,23
SM	kg	0,00	0,00	0,00	0,00	0,00	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	0,00	0,00	0,00	0,00
RSF	MJ	0,00	0,00	0,00	0,00	0,00	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	0,00	0,00	0,00	0,00
NRSF	MJ	0,00	0,00	0,00	0,00	0,00	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	0,00	0,00	0,00	0,00
FW	m ³	1,99E-03	1,82E-07	9,47E-05	1,74E-06	3,02E-05	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	7,45E-08	5,69E-04	1,93E-07	-2,01E-04
Waste categories																		
HWD	kg	6,55E-10	8,36E-11	2,58E-11	1,4E-12	8,55E-13	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	5,98E-14	2,63E-10	8,31E-14	-2,45E-10
NHWD	kg	5,09E-03	1,69E-07	3,12E-04	4,15E-06	1,18E-03	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	1,78E-07	1,83E-03	3,90E-03	-5,18E-04
RWD	kg	3,14E-05	1,32E-08	4,44E-06	4,80E-08	1,86E-07	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	2,06E-09	1,47E-04	8,22E-09	-3,94E-05
Output material flows																		
CRU	kg	0,00	0,00	0,00	0,00	0,00	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	0,00	0,00	0,00	0,00
MFR	kg	0,00	0,00	0,00	0,00	0,00	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	0,00	1,19E-02	0,00	0,00
MER	kg	0,00	0,00	0,00	0,00	0,00	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	0,00	0,00	0,00	0,00
EEE	MJ	0,00	0,00	1,44E-02	0,00	2,71E-02	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	0,00	8,94E-02	0,00	0,00
EET	MJ	0,00	0,00	3,30E-02	0,00	4,88E-02	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	0,00	0,21	0,00	0,00

Legend:

GWP-t – global warming potential - total **GWP-f** – global warming potential fossil fuels **GWP-b** – global warming potential - biogenic **GWP-l** – global warming potential - land use and land use change **ODP** – ozone depletion potential **AP** - acidification potential **EP-fw** - eutrophication potential - aquatic freshwater **EP-m** - eutrophication potential - aquatic marine **EP-t** - eutrophication potential - terrestrial **POCP** - photochemical ozone formation potential **ADPF*2** - abiotic depletion potential – fossil resources **ADPE*2** - abiotic depletion potential – minerals&metals **WDP*2** – Water (user) deprivation potential **PERE** - Use of renewable primary energy **PERM** - use of renewable primary energy resources **PERT** - total use of renewable primary energy resources **PENRE** - use of non-renewable primary energy **PENRM** - use of non-renewable primary energy resources **PENRT** - total use of non-renewable primary energy resources **SM** - use of secondary material **RSF** - use of renewable secondary fuels **NRSF** - use of non-renewable secondary fuels **FW** - net use of fresh water **HWD** - hazardous waste disposed **NHWD** - non-hazardous waste disposed **RWD** - radioactive waste disposed **CRU** - components for re-use **MFR** - materials for recycling **MER** - materials for energy recovery **EEE** - exported electrical energy **EET** - exported thermal energy



Results per 1 rm sealing tapes made of PU and PE

	Unit	A1	A2	A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Additional environmental impacts																		
PM	Disease incidence	2,85E-09	3,25E-12	7,89E-11	1,76E-11	2,21E-11	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	7,18E-13	1,06E-09	5,22E-12	-7,44E-10
IRP*¹	kBq U235-Äqv.	5,35E-03	2,12E-06	4,03E-04	7,02E-06	2,44E-05	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	3,01E-07	2,40E-02	8,65E-07	-6,10E-03
ETP-fw*²	CTUe	1,21	1,10E-03	2,59E-02	1,96E-02	3,41E-03	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	8,39E-04	0,42	4,46E-04	-0,35
HTP-c*²	CTUh	1,57E-10	2,15E-14	1,65E-12	3,96E-13	1,86E-13	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	1,7E-14	1,23E-11	6,58E-14	-1,28E-11
HTP-nc*²	CTUh	1,64E-08	8,72E-13	8,58E-11	2,08E-11	2,00E-11	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	8,9E-13	4,77E-10	7,26E-12	-6,43E-10
SQP*²	dimensionless	0,67	7,55E-04	2,83E-02	9,07E-03	1,16E-03	ND	0,00	0,00	ND	ND	0,00	0,00	0,00	3,89E-04	0,31	1,58E-04	-0,11

Legend:

PM – particulate matter emissions potential **IRP*¹** – ionizing radiation potential – human health **ETP-fw*²** - Eco-toxicity potential – freshwater **HTP-c*²** - Human toxicity potential – cancer effects **HTP-nc*²** - Human toxicity potential – non-cancer effects **SQP*²** – soil quality potential

Disclaimers:

*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 disposal in underground facilities. Potential ionizing radiation from the soil, from radon and from some construction materials is also not measured by this indicator.

*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.

Imprint

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notes

This EPD is mainly based on the work and findings of the Institut für Fenstertechnik e.V., Rosenheim (ift Rosenheim) and specifically on the ift-Guideline NA.01/1 – Guidance on the Preparation of Type III Environmental Product Declarations.

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