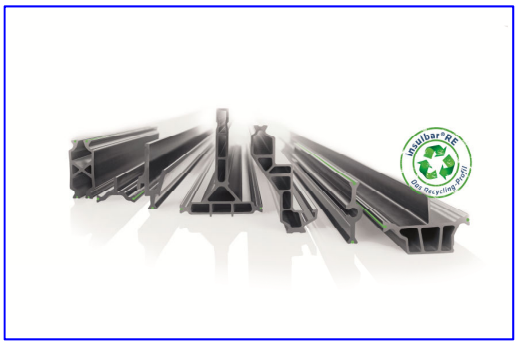
Environmental Product Declaration (EPD)

Short version

Declaration Code: EPD-IBP-14.1



Ensinger insulbar®

Ensinger GmbH

Insulating profiles

insulbar®

EPD © ift Rosenheim

Basis:

DIN EN ISO 14025
EN15804

Company EPD **E**nvironmental **P**roduct **D**eclaration

Publication date:
02.01.2019

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02.01.2024

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Prüfung und Kalibrierung – EN ISO/IEC 17025
Inspektion – EN ISO/IEC 17020
Zertifizierung Produkte – EN ISO/IEC 17065
Zertifizierung Managementsysteme – EN ISO/IEC 17021

Notified Body **0757**
PÜZ-Stelle: **BAY 18**

DAkkS Deutsche Akkreditierungsstelle D-ZE-11349-01-00

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Declaration Code: EPD-IBP-14.1

Programme operator	ift Rosenheim GmbH Theodor-Gietl-Straße 7-9 83026 Rosenheim		
Practitioner of the LCA	ift Rosenheim GmbH Theodor-Gietl-Straße 7-9 83026 Rosenheim		
Declaration holder	Ensinger GmbH Rudolf-Diesel-Straße 8 71154 Nufringen		
Declaration code	EPD-IBP-14.1		
Designation of declared product	insulbar® Insulating profile		
Scope	Thermal break of metal windows, doors and facade systems		
Basis	This EPD was prepared on the basis of EN ISO 14025:2011 and EN 15804:2012+A1:2013. In addition, the "Allgemeiner Leitfaden zur Erstellung von Typ II Umweltproduktdeklarationen" (Guidance on preparing Type III Environmental Product Declarations) applies. The declaration is based on the PCR documents "PCR Teil A" PCR-A-0.1:2018 and "Halbzeuge" PCR-HZ-2.0:2018.		
Validity	Publication date: 02.01.2019	Last revision: 25.03.2019	Next revision: 02.01.2024
	This verified Company Environmental Product Declaration (company EPD) applies solely to the specified products and is valid for a period of 5 years from the date of publication in accordance with DIN EN 15804.		
LCA basis	The LCA was prepared in accordance with DIN EN ISO 14040 and DIN EN ISO 14044. The base data includes both the data collected at the production site of Ensinger GmbH and the generic data derived from the "GaBi 8“ database. LCA calculations were carried out for the included “cradle to gate life cycle with options” (cradle to gate with options) including all upstream processes (e.g. raw material extraction).		
Notes	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.		

Prof. Ulrich Sieberath Director of Institute	Dr.-Ing. Carolin Roth External Verifier

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

Product group: Insulating profiles

Results per kg TECATHERM® 66 GF LUB, TECATHERM® 66 GF, TECATHERM® 66 LX, TECATHERM® 66 ESP (Part 1 of 4)					
Environmental impacts	**Unit**	**A1-A3**	**C3**	**C4**	**D**
GWP	kg CO2-equiv.	8,81	1,53	9,40E-02	-0,67
ODP	kg R11-equiv.	1,71E-10	2,96E-13	1,45E-15	-1,47E-12
AP	kg SO2-equiv.	1,64E-02	1,96E-03	2,40E-05	-1,13E-03
EP	kg PO43--equiv.	3,00E-03	4,83E-04	9,14E-05	-1,22E-04
POCP	kg C2H4-equiv.	1,89E-03	1,17E-04	2,34E-05	-8,86E-05
ADPE	kg Sb-equiv.	1,61E-05	7,21E-08	1,17E-09	-1,91E-07
ADPF	MJ	142,48	1,42	7,54E-02	-9,22
Use of resources	**Unit**	**A1-A3**	**C3**	**C4**	**D**
PERE	MJ	16,14	-	-	-
PERM	MJ	0,22	-	-	-
PERT	MJ	16,34	0,48	6,04E-03	-2,28
PENRE	MJ	136,27	-	-	-
PENRM	MJ	17,67	-	-	-
PENRT	MJ	153,94	1,93	7,83E-02	-11,75
SM	kg	0,00	0,00	0,00	0,00
RSF	MJ	1,41E-12	5,97E-24	4,65E-25	0,00
NRSF	MJ	1,77E-11	7,01E-23	5,46E-24	-8,99E-30
FW	m^3	3,52E-02	4,84E-03	1,15E-05	-3,11E-03
Waste categories and output material flows	**Unit**	**A1-A3**	**C3**	**C4**	**D**
HWD	kg	1,11E-07	2,77E-09	4,03E-10	-4,79E-09
NHWD	kg	8,49E-02	0,13	7,72E-02	-5,06E-03
RWD	kg	4,55E-03	2,04E-04	1,14E-06	-1,00E-03
CRU	kg	0,00	0,00	0,00	-
MFR	kg	0,00	0,00	0,00	-
MER	kg	0,00	0,00	0,00	-
EEE	MJ	5,58E-02	0,00	2,87	-
EET	MJ	0,11	0,00	5,13	-

Legend:

GWP – global warming potential **ODP** – ozone depletion potential **AP** - acidification potential of soil and water **EP** - eutrophication potential **POCP** - photochemical ozone creation potential **ADPE** - abiotic depletion potential – non fossil ressources **ADPF** - abiotic depletion potential – fossil ressources **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

Product group: Insulating profiles

Results per kg TECATHERM® PP GF (Part 2 of 4)					
Environmental impacts	**Unit**	**A1-A3**	**C3**	**C4**	**D**
GWP	kg CO2-equiv.	3,10	1,53	9,40E-02	-0,67
ODP	kg R11-equiv.	1,67E-10	2,96E-13	1,45E-15	-1,47E-12
AP	kg SO2-equiv.	8,64E-03	1,96E-03	2,40E-05	-1,13E-03
EP	kg PO43--equiv.	8,28E-04	4,83E-04	9,14E-05	-1,22E-04
POCP	kg C2H4-equiv.	9,01E-04	1,17E-04	2,34E-05	-8,86E-05
ADPE	kg Sb-equiv.	3,19E-05	7,21E-08	1,17E-09	-1,91E-07
ADPF	MJ	66,41	1,42	7,54E-02	-9,22
Use of resources	**Unit**	**A1-A3**	**C3**	**C4**	**D**
PERE	MJ	11,38	-	-	-
PERM	MJ	0,22	-	-	-
PERT	MJ	11,60	0,48	6,04E-03	-2,28
PENRE	MJ	57,49	-	-	-
PENRM	MJ	13,82	-	-	-
PENRT	MJ	71,31	1,93	7,83E-02	-11,75
SM	kg	0,00	0,00	0,00	0,00
RSF	MJ	1,41E-12	5,97E-24	4,65E-25	0,00
NRSF	MJ	1,77E-11	7,01E-23	5,46E-24	-8,99E-30
FW	m^3	1,55E-02	4,84E-03	1,15E-05	-3,11E-03
Waste categories and output material flows	**Unit**	**A1-A3**	**C3**	**C4**	**D**
HWD	kg	7,97E-08	2,77E-09	4,03E-10	-4,79E-09
NHWD	kg	0,13	0,13	7,72E-02	-5,06E-03
RWD	kg	1,94E-03	2,04E-04	1,14E-06	-1,00E-03
CRU	kg	0,00	0,00	0,00	-
MFR	kg	0,00	0,00	0,00	-
MER	kg	0,00	0,00	0,00	-
EEE	MJ	5,58E-02	0,00	2,87	-
EET	MJ	0,11	0,00	5,13	-

Legend:

GWP – global warming potential **ODP** – ozone depletion potential **AP** - acidification potential of soil and water **EP** - eutrophication potential **POCP** - photochemical ozone creation potential **ADPE** - abiotic depletion potential – non fossil ressources **ADPF** - abiotic depletion potential – fossil ressources **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 kg TECATHERM® 66 GF RE (Part 3 of 4)					
Environmental impacts	**Unit**	**A1-A3**	**C3**	**C4**	**D**
GWP	kg CO2-equiv.	0,76	1,53	9,40E-02	0,00
ODP	kg R11-equiv.	1,65E-10	2,96E-13	1,45E-15	0,00
AP	kg SO2-equiv.	3,52E-03	1,96E-03	2,40E-05	0,00
EP	kg PO43--equiv.	2,44E-04	4,83E-04	9,14E-05	0,00
POCP	kg C2H4-equiv.	2,13E-04	1,17E-04	2,34E-05	0,00
ADPE	kg Sb-equiv.	2,29E-05	7,21E-08	1,17E-09	0,00
ADPF	MJ	11,78	1,42	7,54E-02	0,00
Use of resources	**Unit**	**A1-A3**	**C3**	**C4**	**D**
PERE	MJ	6,70	-	-	-
PERM	MJ	0,22	-	-	-
PERT	MJ	6,92	0,48	6,04E-03	0,00
PENRE	MJ	10,56	-	-	-
PENRM	MJ	2,53	-	-	-
PENRT	MJ	13,09	1,93	7,83E-02	0,00
SM	kg	0,64	0,00	0,00	0,00
RSF	MJ	1,41E-12	5,97E-24	4,65E-25	0,00
NRSF	MJ	1,77E-11	7,01E-23	5,46E-24	0,00
FW	m^3	7,55E-03	4,84E-03	1,15E-05	0,00
Waste categories and output material flows	**Unit**	**A1-A3**	**C3**	**C4**	**D**
HWD	kg	2,62E-08	2,77E-09	4,03E-10	0,00
NHWD	kg	5,99E-02	0,13	7,72E-02	0,00
RWD	kg	5,19E-04	2,04E-04	1,14E-06	0,00
CRU	kg	0,00	0,00	0,00	-
MFR	kg	0,00	0,00	0,00	-
MER	kg	0,00	0,00	0,00	-
EEE	MJ	5,58E-02	0,00	2,87	-
EET	MJ	0,11	0,00	5,13	-

Legend:

GWP – global warming potential **ODP** – ozone depletion potential **AP** - acidification potential of soil and water **EP** - eutrophication potential **POCP** - photochemical ozone creation potential **ADPE** - abiotic depletion potential – non fossil ressources **ADPF** - abiotic depletion potential – fossil ressources **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

The following insulbar® Insulating profiles are also available with CoEx wire:

- **TECATHERM® 66 GF**
- **TECATHERM® 66 LX**
- **TECATHERM® 66 ESP**
- **TECATHERM® 66 GF RE**

Ift he product features CoEx wire the following environmental impacts must be added:

Results per kg CoEx wire (Part 4 of 4)					
Environmental impacts	**Unit**	**A1-A3**	**C3**	**C4**	**D**
GWP	kg CO2-equiv.	8,53	1,53	9,40E-02	-0,67
ODP	kg R11-equiv.	5,70E-12	2,96E-13	1,45E-15	-1,47E-12
AP	kg SO2-equiv.	1,37E-02	1,96E-03	2,40E-05	-1,13E-03
EP	kg PO43--equiv.	2,71E-03	4,83E-04	9,14E-05	-1,22E-04
POCP	kg C2H4-equiv.	1,75E-03	1,17E-04	2,34E-05	-8,86E-05
ADPE	kg Sb-equiv.	2,30E-06	7,21E-08	1,17E-09	-1,91E-07
ADPF	MJ	147,83	1,42	7,54E-02	-9,22
Use of resources	**Unit**	**A1-A3**	**C3**	**C4**	**D**
PERE	MJ	13,79	-	-	-
PERM	MJ	0,00	-	-	-
PERT	MJ	13,79	0,48	6,04E-03	-2,28
PENRE	MJ	137,19	-	-	-
PENRM	MJ	20,73	-	-	-
PENRT	MJ	157,92	1,93	7,83E-02	-11,75
SM	kg	0,00	0,00	0,00	0,00
RSF	MJ	8,29E-20	5,97E-24	4,65E-25	0,00
NRSF	MJ	9,74E-19	7,01E-23	5,46E-24	-8,99E-30
FW	m^3	3,30E-02	4,84E-03	1,15E-05	-3,11E-03
Waste categories and output material flows	**Unit**	**A1-A3**	**C3**	**C4**	**D**
HWD	kg	1,28E-07	2,77E-09	4,03E-10	-4,79E-09
NHWD	kg	5,45E-02	0,13	7,72E-02	-5,06E-03
RWD	kg	4,00E-03	2,04E-04	1,14E-06	-1,00E-03
CRU	kg	0,00	0,00	0,00	-
MFR	kg	0,00	0,00	0,00	-
MER	kg	0,00	0,00	0,00	-
EEE	MJ	5,58E-02	0,00	2,87	-
EET	MJ	0,11	0,00	5,13	-

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-Richtlinie NA-01/3 Allgemeiner Leitfaden zur Erstellung von Typ III Umweltproduktdeklarationen. (Guideline NA.01/3 - Guidance on preparing Type III Environmental Product Declarations)
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