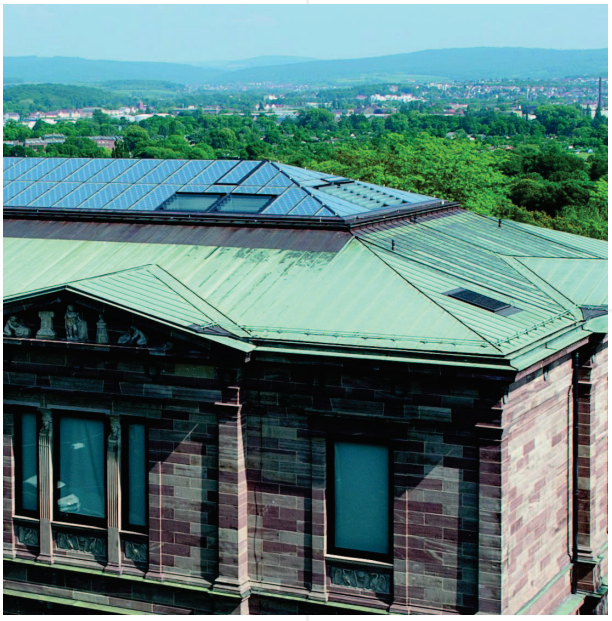
EPD Glass Architecture

Short version
Environmental **P**roduct **D**eclaration
Acc. to ISO 14025 and EN 15804

CI System Glass Architecture PR60 and Smoke lift M (company EPD)

LAMILUX Heinrich Strunz GmbH




Declaration code
EPD-GA-GB-11.2

Total Life Cycle

ift ROSENHEIM

Environmental Product Declaration in accordance with ISO 14025 and EN 15804

Glass architecture PR 60 and smoke lift M

Short version (Part 1 of 2)

Programme operator	**ift Rosenheim GmbH** Theodor-Gietl-Strasse 7-9 83026 Rosenheim	**LCA analyst**	brands & values GmbH Karl-Ferdinand-Braun Str.2 28359 Bremen
Holder of the declaration	LAMILUX Heinrich Strunz GmbH Zehstraße 2 D-95111 Rehau		

LCA results per m² Glass architecture PR 60		Product stage	Construction process stage		Use stage			
		A1 – A3	A4	A5	B1	B2	B3	B4
Primary energy – non-renewable ($PE_{n\ renw}$) in MJ		4.470,00	32,70	-371,00	-	0,64	144,00	-
Primary energy – renewable (PE_{renw}) in MJ		1.560,00	1,93	0,82	-	0,03	2,84	-
Global warming potential (GWP 100) in kg CO_2 equiv.		259,00	2,38	57,70	-	0,11	8,62	-
Ozone depletion potential (ODP) in kg R11 equiv.		2,50E-06	4,97E-11	3,84E-10	-	2,42E-11	1,69E-07	-
Acidification potential (AP) in kg SO_2 equiv.		1,89	0,01	-0,02	-	1,59E-04	0,01	-
Eutrophication potential (EP) in kg PO_4^{3-} equiv.		0,14	2,68E-03	-5,18E-04	-	1,38E-04	1,73E-03	-
Photochemical ozone creation potential (POCP) in kg C_2H_4 equiv.		0,11	-3,82E-03	-3,22E-04	-	2,12E-05	3,20E-03	-
Abiotic depletion potential (elements) ($ADP_{el.}$) in kg Sb equiv.		2,36E-03	1,10E-07	-4,11E-07	-	3,53E-08	1,12E-04	-
Abiotic depletion potential (fossil) (ADP_{fos}) in MJ		4.470,00	32,70	-371,00	-	0,64	144,00	-
Water consumption in m³		868,00	0,15	0,85	-	0,05	4,49	-

All values marked with [-] are either marginal, not available or can not be stated. Irrelevant modules are described in the annex.

Prof. Ulrich Sieberath Director of Institute	Florian Stich Verifier

Environmental Product Declaration in accordance with ISO 14025 and EN 15804

Glass architecture PR 60 and smoke lift M

Short version (Part 1 of 2)

Declaration code	EPD-GA-11.2
Designation of declared product	**LAMILUX CI system glass architecture PR 60** LAMILUX CI system smoke lift M
Scope	Glass roof structure for increased daylight incidence and natural ventilation and extraction.

Use stage			End-of-life stage				Recycling potential
B5	B6	B7	C1	C2	C3	C4	D
-	-	-	-	5,79	53,20	1,37	-2.640,00
-	-	-	-	0,27	3,80	0,09	-729,00
-	-	-	-	0,42	9,89	0,13	-213,00
-	-	-	-	7,84E-12	1,80E-07	6,64E-11	-3,19E-07
-	-	-	-	2,43E-03	0,02	4,98E-04	-1,39
-	-	-	-	5,86E-04	8,86E-03	1,51E-04	-0,09
-	-	-	-	-9,43E-04	1,17E-03	6,48E-05	-0,07
-	-	-	-	1,70E-08	7,06E-06	2,93E-08	-8,23E-04
-	-	-	-	5,79	53,10	1,37	-2.640,00
-	-	-	-	0,02	19,20	0,06	-745,00

Basis

- EN ISO 14025:2011
- EN 15804:2012

Allgemeiner Leitfaden zur Erstellung von Typ III Umweltproduktdeklarationen Guidance on preparing Type III Environmental Product Declarations).

This Declaration is based on the PCR document „Fassaden und Glasdächer“ :(facades and glass roofs) PCR-FA-2.0 2013.

Validity

This verified Environmental Product Declaration applies solely to the specified products and is valid for a period of 5 years from the date created.

The declaration holder assumes full liability for the underlying data, certificates and verifications.

Date of publication:
30 September 2013

Next revision:
30 September 2018

LCA basis

The LCA was prepared in accordance with EN ISO 14040 and EN ISO 14044. The base data includes both the data collected at the production site of Lamilux and generic data from the "GaBi 6“ database. LCA calculations were based on the "cradle to grave“ life cycle including all upstream processes (e.g. raw material extraction, etc.).

Notes on publication

"Conditions and Guidance on the Use of **ift** Test Documents" apply.

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Environmental Product Declaration in accordance with ISO 14025 and EN 15804

Glass architecture PR 60 and smoke lift M

Short version (Part 2 of 2)

Programme operator	**ift Rosenheim GmbH** Theodor-Gietl-Strasse 7-9 83026 Rosenheim	**LCA analyst**	brands & values GmbH Karl-Ferdinand-Braun Str.2 28359 Bremen
Holder of the declaration	LAMILUX Heinrich Strunz GmbH Zehstraße 2 D-95111 Rehau		

LCA results per m² smoke lift M		Product stage	Construction process stage		Use stage			
		A1 – A3	A4	A5	B1	B2	B3	B4
Primary energy – non-renewable ($PE_{n\ renw}$) in MJ		3.500,00	18,00	-	-	26,44	144,00	-
Primary energy – renewable (PE_{renw}) in MJ		699,00	1,07	-	-	0,21	2,84	-
Global warming potential (GWP 100) in kg CO_2 equiv.		283,00	1,31	-	-	0,63	8,62	-
Ozone depletion potential (ODP) in kg R11 equiv.		2,11E-06	2,74E-11	-	-	6,34E-11	1,69E-07	-
Acidification potential (AP) in kg SO_2 equiv.		1,42	6,09E-03	-	-	2,07E-03	0,01	-
Eutrophication potential (EP) in kg PO_4^{3-} equiv.		0,12	1,48E-03	-	-	2,40E-04	1,73E-03	-
Photochemical ozone creation potential (POCP) in kg C_2H_4 equiv.		0,09	-2,11E-03	-	-	2,45E-04	3,20E-03	-
Abiotic depletion potential (elements) ($ADP_{el.}$) in kg Sb equiv.		1,51E-03	6,06E-08	-	-	1,03E-07	1,12E-04	-
Abiotic depletion potential (fossil) (ADP_{fos}) in MJ		3.500,00	18,00	-	-	26,44	144,00	-
Water consumption in m³		729,00	0,08	-	-	0,23	4,49	-

All values marked with [-] are either marginal, not available or can not be stated. Irrelevant modules are described in the annex.

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Designation of declared product	LAMILUX CI system glass architecture PR 60 **LAMILUX CI system smoke lift M**
Scope	Glass roof structure for increased daylight incidence and natural ventilation and extraction.

Use stage			End-of-life stage				Recycling potential
B5	B6	B7	C1	C2	C3	C4	D
-	-	-	-	1,83	45,20	1,06	-2.390,00
-	-	-	-	0,11	3,31	0,07	-660,00
-	-	-	-	0,13	4,80	0,10	-194,00
-	-	-	-	2,79E-12	1,59E-07	5,39E-11	-3,01E-07
-	-	-	-	6,07E-04	0,01	4,19E-04	-1,27
-	-	-	-	1,47E-04	7,87E-03	8,67E-05	-0,08
-	-	-	-	-2,09E-04	9,84E-04	5,32E-05	-0,07
-	-	-	-	6,16E-09	7,25E-06	2,42E-08	-1,02E-03
-	-	-	-	1,83	45,20	1,06	-2.390,00
-	-	-	-	8,15E-03	17,20	0,05	-674,00

Basis

- EN ISO 14025:2011
- EN 15804:2012

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