

EPD Fire- and smoke protection doors

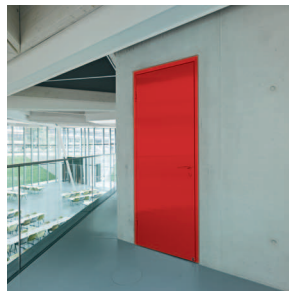
Short version

Environmental Product Declaration

in accordance with ISO 14025 and EN 15804

**Fire- and smoke protection steel and stainless steel doors
(company EPD)**

Tortec Brandschutztor GmbH



Declaration code
EPD-FTÜ-GB-0.7

Environmental Product Declaration in accordance with ISO 14025 and EN 15804

Fire- and smoke protection doors



Short version (part 1 of 3)

Programm operator	ift Rosenheim GmbH Theodor-Gietl-Strasse 7-9 83026 Rosenheim		LCA analyst	Life Cycle Engineering Experts Berliner Allee 58 64295 Darmstadt	
Holder of the declaration	TORTEC Brandschutztor GmbH Imling 10 A-4902 Wolfsegg				

LCA results per m ² T-30-1 fire protection steel door		Manufacture			Construction process		Use	
		A1 – A3	A4	A5	B1	B2	B3	B4
Primary energy - non-renewable (PE _{n,renw}) in MJ		621,20	2,80	-	-	0,02	16,60	-
Primary energy - renewable (PE _{renw}) in MJ		25,71	0,11	-	-	5,99E-4	0,49	-
Global warming potential (GWP 100) in kg CO ₂ equiv.		49,90	0,20	-	-	0,64	6,25	-
Ozone depletion potential (ODP) in kg R11 equiv.		3,39E-7	3,53E-12	-	-	1,24E-8	1,66E-07	-
Acidification potential (AP) in kg SO ₂ equiv.		0,24	1,32E-3	-	-	1,69E-3	0,03	-
Eutrophication potential (EP) in kg PO ₄ ³⁻ equiv.		0,02	3,17E-4	-	-	2,94E-4	2,12E-03	-
Photochem. ozone creation potential (POCP) in kg C ₂ H ₄ equiv.		0,03	-5,38E-4	-	-	1,47E-4	2,61E-03	-
Abiotic resources depletion potential (elements) (ADP _{el.}) in kg Sb equiv.		2,80E-5	7,52E-9	-	-	5,16E-6	2,13E-03	-
Abiotic resources depletion potential - fossil (ADP _{foss}) in MJ		619,10	2,80	-	-	7,91	74,79	-
Water consumption in m ³		37,53	0,01	-	-	0,01	0,34	-

All values marked with [-] are either marginal, not available or cannot be stated. Not relevant modules are described in the annex of the long version.

Prof. Ulrich Sieberath Director of Institute	Patrick Wortner, Dipl.-Ing (FH) Verifier

Environmental Product Declaration in accordance with ISO 14025 and EN 15804

Fire- and smoke protection doors



Short version (part 1 of 3)

Deklaration code	EPD-FTÜ-GB-0.7
Designation of declared product	Fire- and smoke protection steel doors of the model series STS, STU and variants.
Scope	TORTEC fire- and smoke protection steel doors for internal and external use as a shutter for room and building openings for industrial, commercial or residential applications.

Use				End of Life			Recycling-potential
B5	B6	B7	C1	C2	C3	C4	D
-	-	-	-	0,89	-	-	-308,50
-	-	-	-	0,04	-	-	-12,58
-	-	-	-	0,06	-	-	-26,43
-	-	-	-	1,13E-12	-	-	-3,44E-9
-	-	-	-	4,22E-4	-	-	-0,11
-	-	-	-	1,02E-4	-	-	-0,01
-	-	-	-	-1,72E-4	-	-	-0,01
-	-	-	-	2,41E-9	-	-	-1,22E-5
-	-	-	-	0,89	-	-	-308,40
-	-	-	-	3,49E-3	-	-	-6,77

The table presents a summary of the environmental effects. All necessary values according to EN 15804 are in the long version.

Basis

- EN ISO 14025:2011
- EN 15804:2011

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

The Declaration is based on the PCR Document „Türen und Tore“ PCR-TT-1.1 : 2011

Validity

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

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

Date of creation:
01. June 2012

Next revision:
01. June 2017

LCA basis

The LCA was prepared in accordance with EN ISO 14040 and EN ISO 14044. The data base includes the data gathered from the production sites of Tortec Brandschutztor GmbH as well as the generic data derived from the "GaBi 6" data base. LCA calculations were based on the "cradle to grave" life cycle including all upstream processes (e.g. raw material extraction, etc.).

Notes on publication

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

Environmental Product Declaration in accordance with ISO 14025 and EN 15804

Fire- and smoke protection doors



Short version (part 2 of 3)

Programm operator	ift Rosenheim GmbH Theodor-Gietl-Strasse 7-9 83026 Rosenheim		LCA analyst	Life Cycle Engineering Experts Berliner Allee 58 64295 Darmstadt	
Holder of the declaration	TORTEC Brandschutztor GmbH Imling 10 A-4902 Wolfsegg				

LCA results per m ² T-30-1 fire protection steel door with glass		Manufacture			Construction process		Use	
		A1 – A3	A4	A5	B1	B2	B3	B4
Primary energy - non-renewable (PE _{n,renw}) in MJ		699,30	3,08	-	-	0,02	22,25	-
Primary energy - renewable (PE _{renw}) in MJ		31,72	0,12	-	-	5,99E-4	2,39	-
Global warming potential (GWP 100) in kg CO ₂ equiv.		56,95	0,22	-	-	2,24E-3	1,92	-
Ozone depletion potential (ODP) in kg R11 equiv.		3,39E-7	3,89E-12	-	-	-8,92E-16	1,52E-10	-
Acidification potential (AP) in kg SO ₂ equiv.		0,27	1,45E-3	-	-	2,80E-6	0,01	-
Eutrophication potential (EP) in kg PO ₄ ³⁻ equiv.		0,02	3,50E-4	-	-	1,05E-6	5,91E-4	-
Photochem. ozone creation potential (POCP) in kg C ₂ H ₄ equiv.		0,03	-5,93E-4	-	-	5,44E-7	9,19E-4	-
Abiotic resources depletion potential (elements) (ADP _{el.}) in kg Sb equiv.		1,50E-4	8,29E-9	-	-	5,92E-10	2,57E-7	-
Abiotic resources depletion potential - fossil (ADP _{foss}) in MJ		697,20	3,08	-	-	0,02	22,25	-
Water consumption in m ³		42,11	0,01	-	-	0,01	2,25	-

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Prof. Ulrich Sieberath Director of Institute	Patrick Wortner, Dipl.-Ing (FH) Verifier

Environmental Product Declaration in accordance with ISO 14025 and EN 15804

Fire- and smoke protection doors



Short version (part 2 of 3)

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Scope	TORTEC fire- and smoke protection steel doors for internal and external use as a shutter for room and building openings for industrial, commercial or residential applications.

Use				End of Life			Recycling-potential
B5	B6	B7	C1	C2	C3	C4	D
-	-	-	-	3,59	0,99	-	-510,50
-	-	-	-	0,14	0,04	-	-18,17
-	-	-	-	0,07	-	-	-43,30
-	-	-	-	1,24E-12	-	-	-9,07E-9
-	-	-	-	4,65E-4	-	-	-0,19
-	-	-	-	1,12E-4	-	-	-0,01
-	-	-	-	-1,90E-4	-	-	-0,02
-	-	-	-	2,65E-9	-	-	-2,20E-5
-	-	-	-	0,99	-	-	-510,40
-	-	-	-	0,01	3,85	-	-13,62

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Notes on publication

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Environmental Product Declaration in accordance with ISO 14025 and EN 15804

Fire- and smoke protection doors



Short version (part 3 of 3)

Programm operator	ift Rosenheim GmbH Theodor-Gietl-Strasse 7-9 83026 Rosenheim		LCA analyst	Life Cycle Engineering Experts Berliner Allee 58 64295 Darmstadt	
Holder of the declaration	TORTEC Brandschutztor GmbH Imling 10 A-4902 Wolfsegg				

LCA results per m ² T-90-1 fire protection steel door with glass		Manufacture			Use			
		A1 – A3	A4	A5	A1 – A3	A4	A5	
Primary energy - non-renewable (PE _{n,renw}) in MJ		825,80	4,03	-	-	0,02	21,47	-
Primary energy - renewable (PE _{renw}) in MJ		37,69	0,16	-	-	5,99E-4	2,36	-
Global warming potential (GWP 100) in kg CO ₂ equiv.		66,27	0,29	-	-	2,24E-3	1,848	-
Ozone depletion potential (ODP) in kg R11 equiv.		8,30E-7	5,08E-12	-	-	-8,92E-16	1,5E-010	-
Acidification potential (AP) in kg SO ₂ equiv.		0,33	1,90E-3	-	-	2,80E-6	0,007822	-
Eutrophication potential (EP) in kg PO ₄ ³⁻ equiv.		0,03	4,57E-4	-	-	1,05E-6	0,0005691	-
Photochem. ozone creation potential (POCP) in kg C ₂ H ₄ equiv.		0,03	-7,75E-4	-	-	5,44E-7	0,0008827	-
Abiotic resources depletion potential (elements) (ADP _{el.}) in kg Sb equiv.		3,53E-5	1,08E-8	-	-	5,92E-10	2,522E-007	-
Abiotic resources depletion potential - fossil (ADP _{foss}) in MJ		820,60	4,03	-	-	0,02	21,47	-
Water consumption in m ³		42,49	0,02	-	-	0,01	2,24	-

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		Use			End of Life			Recycling-potential
B5	B6	B7	C1	C2	C3	C4	D	
-	-	-	-	1,29	-	-	-505,00	
-	-	-	-	0,05	-	-	-17,91	
-	-	-	-	0,09	-	-	-42,59	
-	-	-	-	1,63E-12	-	-	-1,06E-8	
-	-	-	-	6,08E-4	-	-	-0,19	
-	-	-	-	1,46	-	-	-0,01	
-	-	-	-	-2,48E-4	-	-	-0,02	
-	-	-	-	3,47E-9	-	-	-2,62E-5	
-	-	-	-	1,29	-	-	-504,90	
-	-	-	-	0,01	-	-	-13,08	

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Notes on publication

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ift Rosenheim GmbH

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