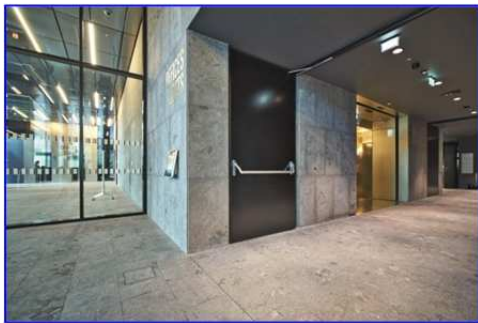


Environmental Product Declaration(EPD)

Short version



Declaration code: EPD-FTÜ-0.7.1



TORTEC
Brandschutztor
GmbH

Doors

Fire and smoke protection steel and stainless steel doors STS/STU



Basis:

DIN EN ISO 14025
EN15804
company-EPD
Environmental
Product Declaration

Date of issue:
14.12.2017

Next revision:
14.12.2022





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Environmental Product Declaration(EPD)

Short version



Declaration code: EPD-FTÜ-0.7.1

Program operator	ift Rosenheim GmbH Theodor-Gietl-Straße 7-9 83026 Rosenheim		
LCA specialist	Life Cycle Engineering Experts Berliner Allee 58 64295 Darmstadt		
Declaration holder	TORTEC Brandschutztor GmbH Imling 10 A-4902 Wolfsegg		
Declaration code	EPD-FTÜ-0.7.1		
Designation of the declared product	Fire and smoke protection steel and stainless steel doors STS/STU		
scope	TORTEC fire and smoke protection steel and stainless steel doors STS/STU for internal and external use as a shutter for room and building openings for industrial, commercial and residential applications.		
basis	This EPD was prepared on the basis of EN ISO 14025:2011 and EN 15804:2012+A1:2013. In addition the "General guideline for elaboration of type III environmental product declarations" applies. This Declaration is based on the PCR Document „Türen und Tore“ – PCR-TT-1.1:2013		
validity	Date of issue: 14.12.2017	Last revision: 14.12.2017	Next revision: 14.12.2022
	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 TORTEC Brandschutz GmbH and generic data from the "GaBi 6" database. LCA calculations were based on the "cradle to gate with options" life cycle (e.g. raw materials production).		
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.		
			
Prof. Ulrich Sieberath Director of institute	Florian Stich External Verifier		

Note: Additional information can be found in the long version.



Product group: Doors

Results per m ² steel and stainless steel doors STS/STU T30-1 (part 1)																
Environmental impacts	unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global warming potential (GWP)	kg CO ₂ -Äqv.	112	0,34	6,9	-	2,09E-03	1,82	-	-	54,1	-	0,65	0,26	0,06	2,23	-47,40
Ozone depletion potential (ODP)	kg R11-Äqv.	1,30E-08	1,11E-13	2,78E-13	-	2,46E-15	1,02E-11	-	-	2,4E-09	-	2,89E-11	8,50E-14	2,74E-12	2,87E-13	-3,34E-10
Acidification potential of soil and water (AP)	kg SO ₂ -Äqv.	0,46	1,42E-03	6,43E-04	-	2,31E-06	6,51E-03	-	-	0,16	-	1,86E-03	1,50E-03	1,76E-04	1,57E-03	-0,16
Eutrophication potential (EP)	kg PO ₄ ³⁻ -Äqv.	0,04	3,54E-04	1,39E-04	-	1,04E-06	5,32E-04	-	-	0,01	-	1,68E-04	3,80E-04	1,59E-05	2,25E-04	-0,01
Photochemical ozone creation potential (POCP)	kg C ₂ H ₄ -Äqv.	0,05	-5,24E-04	5,35E-05	-	1,96E-07	8,00E-04	-	-	9,88E-03	-	1,19E-04	-6,64E-04	1,12E-05	1,27E-04	-0,02
Abiotic depletion potential - non-fossil resources (ADP - elements)	kg Sb-Äqv.	2,66E-04	2,66E-08	8,06E-08	-	3,89E-10	1,75E-07	-	-	2,07E-05	-	2,49E-07	2,04E-08	2,36E-08	1,02E-07	-1,82E-06
Abiotic depletion potential - fossil resources (ADP – fossil fuels.)	MJ	1440	4,58	1,24	-	0,01	20,4	-	-	578	-	6,94	3,50	0,66	3,39	-546
Use of resources	unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Use of renewable primary energy - excluding renewable primary energy resources used as raw materials	MJ	0	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Use of renewable primary energy resources used as raw materials (material use)	MJ	0,67	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Total use of renewable primary energy resources (primary energy and renewable primary energy resources used as raw materials) (energy + material use)	MJ	221	0,23	0,26	-	8,65E-04	2,19	-	-	324	-	3,89	0,18	0,37	0,43	-37,40
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials.	MJ	0	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Use of non-renewable primary energy resources used as raw materials (material use)	MJ	14,96	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Total use of non-renewable primary energy resources (primary energy and non-renewable primary energy resources used as raw materials) (energy + material use)	MJ	1490	4,60	1,38	-	0,01	21,70	-	-	950	-	11,40	3,51	1,08	3,53	-574
Use of secondary materials	kg	0	0	0	-	0	0	-	-	0	-	0	0	0	0	0



Product group: Doors

Results per m ² steel and stainless steel doors STS/STU T30-1 (part 2)																
Use of resources	unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Use of renewable secondary fuels	MJ	0	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Use of non-renewable secondary fuels	MJ	0	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Use of net fresh water	m ³	175	0,02	0,14	-	5,59E-03	3,80	-	-	246	-	2,96	0,01	0,28	0,21	-23,40
Waste categories	unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	3,24E-03	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Non-hazardous waste disposed (municipal waste)	kg	554	0,02	0,3	-	2,72E-03	8,92	-	-	233	-	5,44	0,01	12,90	15,90	-258
Radioactive waste	kg	0,02	6,28E-06	5,70E-05	-	2,31E-07	5,06E-04	-	-	0,15	-	1,77E-03	4,79E-06	1,68E-04	5,46E-05	-0,01
Output material flows	unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Materials for recycling	kg	0	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Materials for energy recovery	kg	0	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Exported energy (electricity)	MJ	0	0	0	-	0	0	-	-	0	-	0	0	0	-3,66	0
Exported energy (thermal energy)	MJ	0	0	0	-	0	0	-	-	0	-	0	0	0	-8,86	0



Product group: Doors

Results per m ² steel and stainless steel doors STS/STU T30-1 + Glas (part 1)																
Environmental impacts	unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global warming potential (GWP)	kg CO ₂ -Äqv.	118	0,37	6,92	-	2,09E-03	1,83	-	-	54,1	-	0,73	0,29	0,06	2,37	-47,40
Ozone depletion potential (ODP)	kg R11-Äqv.	1,30E-08	1,24E-13	2,78E-13	-	2,46E-15	1,03E-11	-	-	2,40E-09	-	3,24E-11	9,53E-14	2,74E-12	4,25E-13	-3,34E-10
Acidification potential of soil and water (AP)	kg SO ₂ -Äqv.	0,51	1,57E-03	6,44E-04	-	2,31E-06	6,58E-03	-	-	0,16	-	2,08E-03	1,68E-03	1,76E-04	2,38E-03	-0,16
Eutrophication potential (EP)	kg PO ₄ ³⁻ -Äqv.	0,05	3,93E-04	1,40E-04	-	1,04E-06	5,37E-04	-	-	0,01	-	1,88E-04	4,25E-04	1,59E-05	3,34E-04	-0,01
Photochemical ozone creation potential (POCP)	kg C ₂ H ₄ -Äqv.	0,05	-5,81E-04	5,37E-05	-	1,96E-07	8,08E-04	-	-	9,88E-03	-	1,33E-04	-7,44E-04	1,12E-05	1,90E-04	-0,02
Abiotic depletion potential - non-fossil resources (ADP - elements)	kg Sb-Äqv.	2,84E-04	2,96E-08	8,08E-08	-	3,89E-10	1,75E-07	-	-	2,07E-05	-	2,79E-07	2,28E-08	2,36E-08	1,50E-07	-1,82E-06
Abiotic depletion potential - fossil resources (ADP – fossil fuels.)	MJ	1520	5,08	1,24	-	0,01	20,6	-	-	578	-	7,78	3,92	0,66	5,15	-546
Use of resources	unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Use of renewable primary energy - excluding renewable primary energy resources used as raw materials	MJ	0	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Use of renewable primary energy resources used as raw materials (material use)	MJ	0,67	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Total use of renewable primary energy resources (primary energy and renewable primary energy resources used as raw materials) (energy + material use)	MJ	226	0,26	0,26	-	8,65E-04	2,19	-	-	324	-	4,36	0,2	0,37	0,64	-37,4
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials.	MJ	0	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Use of non-renewable primary energy resources used as raw materials (material use)	MJ	14,96	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Total use of non-renewable primary energy resources (primary energy and non-renewable primary energy resources used as raw materials) (energy + material use)	MJ	1580	5,1	1,39	-	0,01	21,9	-	-	950	-	12,8	3,94	1,08	5,35	-574
Use of secondary materials	kg	0	0	0	-	0	0	-	-	0	-	0	0	0	0	0



Product group: Doors

Results per m ² steel and stainless steel doors STS/STU T30-1 + Glas (part 2)																
Use of resources	unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Use of renewable secondary fuels	MJ	0	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Use of non-renewable secondary fuels	MJ	0	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Use of net fresh water	m ³	178	0,02	0,14	-	5,59E-03	3,81	-	-	246	-	3,31	0,02	0,28	0,31	-23,4
Waste categories	unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	3,24E-03	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Non-hazardous waste disposed (municipal waste)	kg	562	0,02	0,3	-	2,72E-03	9,02	-	-	233	-	6,1	0,01	21	24,6	-258
Radioactive waste	kg	0,02	6,96E-06	5,71E-05	-	2,31E-07	5,07E-04	-	-	0,15	-	1,99E-03	5,37E-06	1,68E-04	7,94E-05	-0,01
Output material flows	unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg	0	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Materials for recycling	kg	0	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Materials for energy recovery	kg	0	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Exported energy (electricity)	MJ	0	0	0	-	0	0	-	-	0	-	0	0	0	-3,66	0
Exported energy (thermal energy)	MJ	0	0	0	-	0	0	-	-	0	-	0	0	0	-8,86	0



Product group: Doors

Results per m ² steel and stainless steel doors STS/STU T90-1 (part 1)																
Environmental impacts	unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Global warming potential (GWP)	kg CO ₂ -Äqv.	108	0,46	6,91	-	2,09E-03	1,77	-	-	54	-	0,90	0,36	0,06	2,21	-50,20
Ozone depletion potential (ODP)	kg R11-Äqv.	1,30E-08	1,51E-13	2,78E-13	-	2,46E-15	1,00E-11	-	-	2,4E-09	-	4,00E-11	1,18E-13	2,74E-12	1,06E-13	-3,75E-10
Acidification potential of soil and water (AP)	kg SO ₂ -Äqv.	0,45	1,93E-03	6,43E-04	-	2,31E-06	6,33E-03	-	-	0,154	-	2,57E-03	2,07E-03	1,76E-04	5,11E-04	-0,17
Eutrophication potential (EP)	kg PO ₄ ³⁻ -Äqv.	0,04	4,81E-04	1,39E-04	-	1,04E-06	5,16E-04	-	-	0,014	-	2,33E-04	5,25E-04	1,59E-05	8,09E-05	-0,02
Photochemical ozone creation potential (POCP)	kg C ₂ H ₄ -Äqv.	0,05	-7,12E-04	5,36E-05	-	1,96E-07	7,75E-04	-	-	9,85E-03	-	1,64E-04	-9,19E-04	1,12E-05	4,37E-05	-0,02
Abiotic depletion potential - non-fossil resources (ADP - elements)	kg Sb-Äqv.	4,16E-05	3,62E-08	8,06E-08	-	3,89E-10	1,74E-07	-	-	2,07E-05	-	3,44E-07	2,82E-08	2,36E-08	3,83E-08	-2,11E-06
Abiotic depletion potential - fossil resources (ADP – fossil fuels.)	MJ	1,43E+03	6,23	1,24	-	0,01	19,80	-	-	577	-	9,61	4,84	0,66	1,06	-581,00
Use of resources	unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Use of renewable primary energy - excluding renewable primary energy resources used as raw materials	MJ	0	0	0	-	0	-	-	-	0	-	0	0	0	0	0
Use of renewable primary energy resources used as raw materials (material use)	MJ	3,48	0	0	-	0	-	-	-	0	-	0	0	0	0	0
Total use of renewable primary energy resources (primary energy and renewable primary energy resources used as raw materials) (energy + material use)	MJ	234	0,31	0,26	-	8,65E-04	2,16	-	-	323	-	5,38	0,24	0,37	0,15	-43
Use of non-renewable primary energy excluding non-renewable primary energy resources used as raw materials.	MJ	0	0	0	-	0	-	-	-	0	-	0	0	0	0	0
Use of non-renewable primary energy resources used as raw materials (material use)	MJ	16,17	0	0	-	0	-	-	-	0	-	0	0	0	0	0
Total use of non-renewable primary energy resources (primary energy and non-renewable primary energy resources used as raw materials) (energy + material use)	MJ	1470	6,25	1,38	-	0,01	21,1	-	-	947	-	15,8	4,86	1,08	1,12	-609
Use of secondary materials	kg	0	0	0	-	0	0	-	-	0	-	0	0	0	0	0



Product group: Doors

Results per m ² steel and stainless steel doors STS/STU T90-1 (part 2)																
Use of resources	unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Use of renewable secondary fuels	MJ	0	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Use of non-renewable secondary fuels	MJ	0	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Use of net fresh water	m ³	201	0,03	0,142	-	5,59E-03	3,79	-	-	246	-	4,09	0,02	0,28	0,08	-24,30
Waste categories	unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Hazardous waste disposed	kg	3,24E-03	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Non-hazardous waste disposed (municipal waste)	kg	549	0,02	0,3	-	2,72E-03	8,63	-	-	233	-	7,53	0,02	0,61	4,21	-273
Radioactive waste	kg	0,02	8,52E-06	5,70E-05	-	2,31E-07	5,03E-04	-	-	0,15	-	2,45E-03	6,63E-06	1,68E-04	2,22E-05	-0,01
Output material flows	unit	A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4	D
Components for re-use	kg		0	0	-	0	0	-	-	0	-	0	0	0	0	0
Materials for recycling	kg	0	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Materials for energy recovery	kg	0	0	0	-	0	0	-	-	0	-	0	0	0	0	0
Exported energy (electricity)	MJ	0	0	0	-	0	0	-	-	0	-	0	0	0	-3,97	0
Exported energy (thermal energy)	MJ	0	0	0	-	0	0	-	-	0	-	0	0	0	-9,6	0



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