Door closers

Fachverband
Schloss- und Beschlagindustrie e.V.

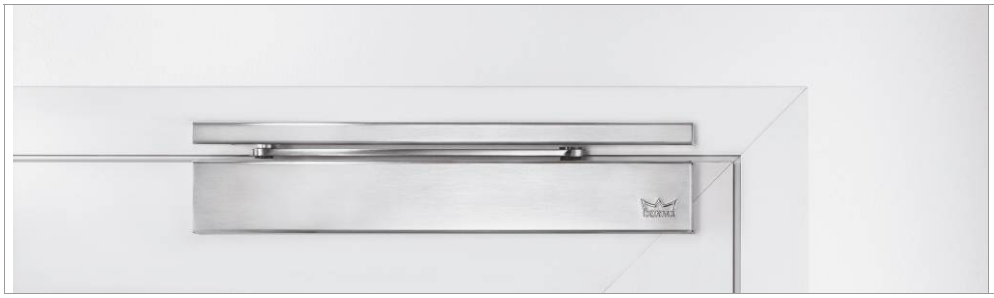
Environmental Product Declaration

According to ISO 14025

Declaration number
EPD-FVS-2011511-E
Institut Bauen und Umwelt e.V.
www.bau-umwelt.com

FV S+B **Überreicht an:**

Institut Bauen
und Umwelt e.V.



Brief version

Environmental Product Declaration

Environmental Product Declaration

Institut Bauen und Umwelt e.V. **www.bau-umwelt.com**	**Programme holder**
Fachverband Schloss- und Beschlagindustrie e.V. Offerstr. 12 D-42551 Velbert	**Declaration holder**
EPD-FVS-2011511-E	**Declaration number**
Door closers This Declaration is an Environmental Product Declaration in accordance with ISO 14025 and describes the specific environmental features of the construction products in Germany outlined here. It intends to promote the development of construction which is compatible with the environment and health. This validated Declaration discloses all of the relevant environmental data. The Declaration is based on the “Locks and Fittings: 2012-12" PCR document.	**Declared construction products**
This validated Declaration entitles the holder to bear the symbol of the Institut Bauen und Umwelt e.V. It exclusively applies for the products referred to for a period of three years from the date of issue. The Declaration holder is liable for the details and documentation upon which the evaluation is based.	**Validity**
The **Declaration** is complete and comprises in detail: - Product definition and physical construction data - Details on base materials and material origin - Description of the product manufacturing process - Information on product processing - Data on the utilisation status, extraordinary effects and re-use phase - Results of the Life Cycle Assessment - Documentation and tests	**Content of the Declaration**

14 June 2011	**Issue date**
Prof. Dr.-Ing. Horst J. Bossenmayer (President of Institut Bauen und Umwelt e.V.)	**Signatures**

This Declaration and the regulations upon which it is based have been tested by the independent Committee of Experts (SVA) in line with ISO 14025.		**Testing the Declaration**
Prof. Dr.-Ing. Hans-Wolf Reinhardt (Chairman of the SVA)	Dr. Frank Werner (tester appointed by the SVA)	**Signatures**

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Overhead door closers and integrated door closers comprise a locking mechanism which is integrated in a housing made of grey iron or aluminium as well as a rod which serves towards torque transfer. The locking mechanism and rod are primarily manufactured from steel components. As protection against environmental effects and for decorative reasons, the surfaces are coated (painted or galvanised). Overhead door closers are also frequently fitted with decorative slides or covers made of aluminium.

Product description

Manual door closing mechanism for use on single or double swing doors. After opening, the door is closed in a controlled manner by the activated door closer.

Area of application

The Life Cycle Assessment was performed in accordance with DIN ISO 14040/44 in line with the requirements of the guidelines to Type III Declarations by Institut Bauen und Umwelt e.V. Specific data provided by Fachverband Schloss- und Beschlagindustrie e.V. was applied as well as data from the "GaBi 4" data base. The Life Cycle Assessment comprises the extraction of raw materials and energy, raw materials transport, the actual manufacturing phase incl. packaging and recycling thereof, transport to use as well as disposal and/or recycling of the declared door closers.

Life Cycle Assessment framework

Results of the Life Cycle Assessment

Door closers									
Analysis factor / Unit	**Overhead door closer, grey iron**			**Overhead door closer, aluminium**			**Integrated door closer, grey iron**		
	Manufacture	Transport to use	EoL	Manufacture	Transport to use	EoL	Manufacture	Transport to use	EoL
Non-regenerative primary energy [MJ]	460.91	2.1E+00	-136.47	368.73	9.0E-01	-108.98	285.39	7.7E-01	-51.48
Regenerative primary energy [MJ]	43.53	2.3E-03	-23.45	47.94	9.8E-04	-30.80	20.92	8.3E-04	-9.40
Global Warming Potential (GWP 100 years) [kg CO_2 equiv.]	31.88	1.5E-01	-9.36	25.60	6.4E-02	-7.84	19.63	5.5E-02	-3.60
Ozone depletion potential (ODP) [kg R11 equiv.]	2.1E-06	2.5E-10	-3.7E-07	2.1E-06	1.1E-10	-6.5E-07	1.4E-06	9.1E-11	-1.6E-07
Acidification Potential (AP) [kg SO_2 equiv.]	8.7E-02	5.9E-04	-4.0E-02	7.3E-02	2.5E-04	-3.6E-02	4.5E-02	2.1E-04	-1.6E-02
Eutrophication Potential (NP) [kg $PO_4$3 equiv.]	6.9E-03	9.8E-05	-2.5E-03	4.9E-03	4.1E-05	-1.8E-03	3.7E-03	3.5E-05	-9.7E-04
Summer Smog Potential (POCP) [kg C_2H_4 equiv.]	8.8E-03	5.8E-05	-4.1E-03	5.9E-03	2.5E-05	-2.6E-03	4.4E-03	2.1E-05	-1.5E-03

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No documentation required in accordance with the PCR.

Documentation and tests

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und Umwelt e.V.

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