Environmental Product Declaration

According to ISO 14025

Locks

Fachverband
Schloss- und Beschlagindustrie e.V.

Declaration number
EPD-FVS-2011111-E
Institut Bauen und Umwelt e.V.
www.bau-umwelt.com

FV S+B Presented to: **GEZE GmbH**

Institut Bauen
und Umwelt e.V.

Brief version

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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-2011111-E	**Declaration number**
Locks This Declaration is an Environmental Product Declaration in accordance with ISO 14025 and describes the specific environmental features of the construction products outlined and valid for data recording in Germany. 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: 2010-12" 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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Product description

Locks and/or lock components essentially comprise metal; the housing and lock plates are generally made of steel plate; the faceplate visible after installation can be made of stainless steel or galvanised steel and may display a coated surface. Only the faceplate and lock plate are visible after installation. The lock is accommodated in the lockcase of the door panel or in the tubular frame/profile recesses.

Depending on the application, the latch, lock and nut as well as the other lock components are made of plastic, die-cast zinc, steel or brass. For optical or corrosion-protection reasons, they can feature a galvanised or nickel-plated surface. The springs are usually made of spring steel.

Area of application

The lock types described here are generally installed in buildings as door locks. Depending on the design, these lock types can be designated for use in fire and smoke doors and/or in escape doors.

Life Cycle Assessment framework

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 locks.

Results of the Life Cycle Assessment

Locks									
Analysis factor / Unit	**Mortise / Tubular frame door lock**			**Multi-point lock**			**Electromech. multi-point lock**		
	Manufac-ture	Transport to use	EoL	Manufac-ture	Transport to use	EoL	Manufac-ture	Transport to use	EoL
Non-regenerative primary energy [MJ]	38.32	0.13	-14.39	101.90	0.88	-48.60	144.30	1.07	-77.36
Regenerative primary energy [MJ]	2.21	1.4E-04	-0.84	5.99	9.5E-04	-2.95	9.83	1.2E-03	-6.74
Global Warming Potential (GWP 100 years) [kg CO_2 equiv.]	2.56	0.01	-0.87	7.07	0.06	-3.16	9.46	0.08	-4.82
Ozone Depletion Potential (ODP) [kg R11 equiv.]	1.6E-07	1.5E-11	-4.2E-08	3.8E-07	1.0E-10	-1.4E-07	6.8E-07	1.3E-10	-4.0E-07
Acidification Potential (AP) [kg SO_2 equiv.]	7.7E-03	3.6E-05	-3.8E-03	2.2E-02	2.4E-04	-1.4E-02	3.1E-02	2.9E-04	-2.3E-02
Eutrophication Potential (NP) [kg PO_4^{3-} equiv.]	6.2E-04	5.9E-06	-2.5E-04	1.8E-03	4.0E-05	-1.1E-03	2.4E-03	4.9E-05	-1.5E-03
Summer Smog Potential (POCP) [kg C_2H_4 equiv.]	9.0E-04	3.5E-06	-4.2E-04	2.5E-03	2.4E-05	-1.5E-03	3.2E-03	2.9E-05	-2.0E-03

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Documentation and tests

No documentation required in accordance with the PCR.

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