



Environmental Product Declaration

according to ISO 14025



Roofing and waterproofing
membrane system
EVALON[®]

Summary

alwitra ^a
DIE DACHMARKE

Declaration number
EPD-ALW-2010111-E

Institute Construction and Environment
www.bau-umwelt.com



Institut Bauen
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	Summary Environmental Product Declaration	
Institute Construction and Environment www.bau-umwelt.com		Programm holder
alwitra GmbH & Co. Klaus Göbel Am Forst 1 54296 Trier, Germany		Declaration holder
EPD-ALW-2010111-E		Declaration number
EVALON® roofing and waterproofing membrane system This declaration is an Environmental Product Declaration according to ISO 14025 and describes the specific environmental impacts of the building products specified herein. Its purpose is to promote the development of environmentally and health friendly building. All relevant environmental data is revealed in this validated declaration. The declaration is based on the PCR document "Synthetic and elastomeric roofing and waterproofing membrane systems", September 2010.		Declared building products
This validated declaration entitles the usage of the label of the Institute Construction and Environment. It exclusively applies to the specified products, for three years from the date of issue. The declaration holder is liable for the basic information and certificates.		Validity
The declaration is complete and contains in detailed form: <ul style="list-style-type: none"> - Product definition and information about building physics - Information about basic materials and the materials' origin - Description of the product's manufacture - References for product processing - Information on the in-use conditions, singular impacts and end of life - Life Cycle Assessment results - Certificates and tests 		Content of the Declaration
28 December, 2010		Date of issue
	Prof. Dr.-Ing. Horst J. Bossenmayer (President of the Institute Construction and Environment)	Signatures
This declaration, and the rules which it is based on, have been verified by the Independent Advisory Board (SVA) according to ISO 14025.		Verification of the declaration
		Signatures
Prof. Dr.-Ing. Hans-Wolf Reinhardt (Chairman of the SVA)	Dr. Birgit Grahl (Reviewer appointed by the SVA)	



Summary Environmental Product Declaration

This document refers to the manufacture and usage of bitumen-compatible EVA roofing and waterproofing membranes of the company alwitra. Synthetic EVA membranes consist of a high polymer alloy of EVA terpolymer and PVC including additives, with and without backing, with and without self-adhesive coating according to DIN V 20000-201 and DIN V 20000-202. The usage of system components such as roof edge trims, rainwater outlets, vents, rooflights, etc. is not declared; however, it is described in chapter 4 of the full version,

alwitra produces EVA roofing and waterproofing membranes under the brand name EVALON® in the following options:

EVALON®	unbacked
EVALON® V	with polyester fleece backing
EVALON® VG	with glass/polyester fleece backing
EVALON® VSK	with polyester fleece backing and self-adhesive coating
EVALON® VGSK	with glass/polyester fleece backing and self-adhesive coating

Product description

The intended use of the declared roofing and waterproofing membranes is as follows:

Single-ply waterproofing of non-used and used roofs as well as of non-waterproof foundations or constructional parts against ground moisture and non-pressing water.

Depending on specification, the membranes are applied as follows:

- loose laid under ballast (e. g. gravel, tiles, vegetation)
- mechanically fastened or
- bonded

alwitra system adhesives required for fixing are taken into account. Mechanical fastening systems such as ballast (e. g. gravel, vegetation) do **not** constitute part of the LCA of this EPD.

Range of application

The **LCA** was performed pursuant to DIN ISO 14040 und DIN ISO 14044 in accordance with the requirements of the guidelines for type III declarations of the Institute Construction and Environment. As data basis, specific data on the examined products provided by the manufacturer's plant in Hermeskeil as well as data from the data base "GaBi4" was applied. The LCA comprises raw material and energy production, raw material transportation, the actual manufacturing and installation phase as well as disposal or recycling. For three of the EVALON® systems, the specific results are as follows; the results for the other systems are contained in chapter 8 of the full version.

Scope of the Life Cycle Assessment

LCA results

Results per 1 m ² of installed EVALON membrane	EVALON V (mech. fastened or loose laid)				EVALON V (bonded with PUR D)				EVALON VGSK (self-adhesive)			
	manufacture/installation		end of life		manufacture/installation		end of life		manufacture/installation		end of life	
	1.2 mm	1.5 mm	1.2 mm	1.5 mm	1.2 mm	1.5 mm	1.2 mm	1.5 mm	1.2 mm	1.5 mm	1.2 mm	1.5 mm
Primary energy. non-renewable [MJ]	143.6	174.7	-41.6	-51.0	161.3	192.4	-41.6	-51.0	165.2	196.3	-40.4	-49.5
Primary energy. renewable [MJ]	10.5	13.0	-2.4	-3.0	10.8	13.3	-2.4	-3.0	10.8	13.3	-2.6	-3.1
Abiotic resource depletion [kg Sb eqv.]	7.8E-06	9.7E-06	-1.3E-06	-1.6E-06	1.0E-05	1.2E-05	-1.3E-06	-1.6E-06	1.2E-05	1.4E-05	-1.6E-06	-1.9E-06
Abiotic resource depletion [MJ]	128.2	156.1	-38.8	-47.6	143.8	171.6	-38.8	-47.6	148.9	176.7	-37.9	-46.3
Global warming potential [kg CO ₂ eqv.]	6.4	7.8	5.6E-01	6.9E-01	7.6	9.0	5.6E-01	6.9E-01	7.4	8.8	6.2E-01	7.6E-01
Ozone depletion potential [kg R11 eqv.]	4.3E-07	5.3E-07	-7.8E-08	-9.5E-08	4.9E-07	5.9E-07	-7.8E-08	-9.5E-08	4.6E-07	5.5E-07	-7.2E-08	-8.8E-08
Acidification potential [kg SO ₂ eqv.]	2.9E-02	3.6E-02	-7.1E-03	-8.7E-03	3.2E-02	3.9E-02	-7.1E-03	-8.7E-03	3.1E-02	3.8E-02	-7.5E-03	-9.1E-03
Eutrophication potential [kg PO ₄ eqv.]	2.6E-03	3.3E-03	-6.4E-04	-7.9E-04	3.1E-03	3.8E-03	-6.4E-04	-7.9E-04	2.9E-03	3.5E-03	-6.7E-04	-8.2E-04
Summer smog potential [kg C ₂ H ₄ eqv.]	7.8E-03	9.6E-03	-2.2E-03	-2.7E-03	1.2E-02	1.3E-02	-2.2E-03	-2.7E-03	8.2E-03	1.0E-02	-2.3E-03	-2.8E-03

The terms "mechanically fastened" or "loose laid" are indicated for specification purposes only. Fasteners for mechanical fastening and ballast for loose laying do not constitute part of the LCA.

Issued by: alwitra GmbH & Co., Trier
in co-operation with PE International, Leinfelden-Echterdingen



No certificates required when used and commissioned in accordance with the intended purpose.

Certificates and tests



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