



Foil Systems

created by Castelein Sealants

Thanks to our production facilities, we can produce foils and membranes that are easy to apply in various building situations. You will find some practical examples below and on the following pages. Samples of the foils can be found on the sample card.



1

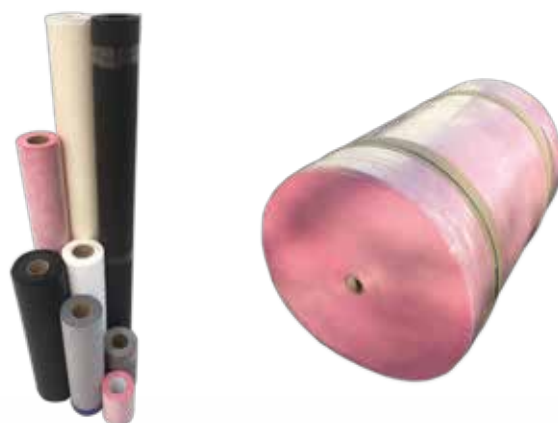
Façade or roofing membrane on rolls

We can deliver non-adhesive membranes:

- a. at full width (1500 mm) and roll length of 25m or 50m
- b. cut to size (all widths available)

Practical examples:

- all foils on rolls
 - membranes for exterior applications, open to vapour
 - o OS Black FR / ST / SI / Open-Ex
 - interior membranes, vapour impermeable
 - o Closed-In / foil N
 - vapour regulating membranes
 - o Dynamic foil



2

Façade or roofing membranes provided with self-adhesive strips

We provide the façade or roofing membranes with self-adhesive strips (at full width or cut to size)

Practical examples:

- window membranes with 1 self-adhesive strip (see p. 10 and 11)
 - o OS Black FR / ST / SI / Dynamic / Open-Ex / Closed-In / N
- membranes cut to size with self-adhesive strips on both sides
 - o OS Black FR / ST / SI / Dynamic / Open-Ex / Closed-In / N



3

Fully self-adhesive façade or roofing membranes (tapes)

We provide the membranes with an adhesive strip (butyl or acrylic) and cut them to the desired width.

Practical examples:

- airtight and waterproof tapes, open to vapour
 - o OS Black FR tape / Foil tape / ST tape / SI tape
- tapes that can be plastered over (vapour impermeable, open to vapour or vapour regulating)
 - o N tape / SI tape / Dynamic tape
- tapes to connect vapour barriers
 - o LDPE Green tape / N tape / Dynamic tape



4

Fully self-adhesive façade or roofing membranes with multiple protective paper (Easy Foil System)

Thanks to our production facilities, we can provide our tapes with a multiple protective paper. For our window membranes we provide the multiple protective paper standard at fixed positions, depending on the width. For larger dimensions however we can provide them at positions according to your needs.

Practical examples:

- window membranes (see pages 4 - 7)
 - o Easy Foil OS Black FR / ST / SI / N / Dynamic
- tapes with protective paper split in the middle
 - o possible with all our tapes



1.b.

Easy Foil System

created by Castelein Sealants

Using two airtight dampproof membranes can lock in much vapour between the watertight, exterior layer and the airtight, interior coating.

This can cause a significant decrease in the lambda (λ)-value of the insulation. Additionally, it can also lead to the proliferation of fungi.

The use of a permeable material for the exterior coating is subsequently of paramount importance.

We also have vapor regulating membranes provided with an adhesive layer for indoor and outdoor applications.

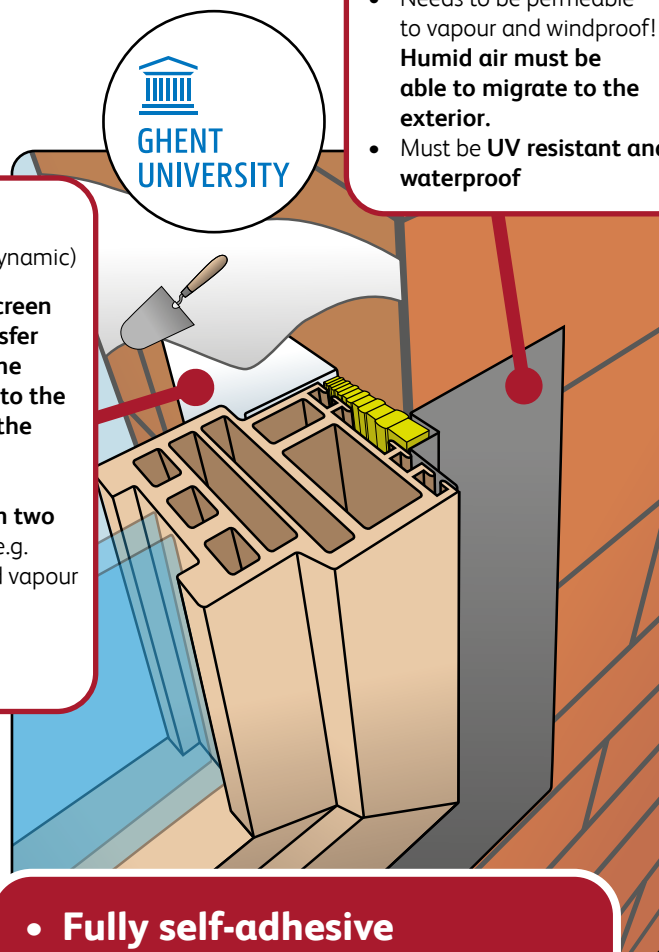
INTERIOR APPLICATION

Airtight interior foil
(Easy Foil N / Easy Foil Dynamic)

- Vapour (variable) screen preventing the transfer of humid air from the inside of the house to the insulation layer on the outside.
- Creates an **airtight connection between two airtight materials** (e.g. between window and vapour screen or plaster)
- Must be **suitable for plastering**

Open to vapour / vapour regulating / waterproof exterior foil (See page 6)

- Needs to be permeable to vapour and windproof!
Humid air must be able to migrate to the exterior.
- Must be **UV resistant and waterproof**



- **Fully self-adhesive**
- **No additional glue needed**
- **Lightning fast application**


Easy Foil N (+) / Easy Foil 1500 N (+)

- Easy Foil N (+): vapour barrier / airtight / can be plastered
- Easy Foil 1500 N (+): vapour block / airtight / can be plastered
- Easy Foil N+ & Easy Foil 1500 N+ : Additional layer of glue to reattach to the side of the window profile













Easy Foil Dynamic (+)

- Permeable to vapour / airtight / can be plastered
- Also suitable for exterior use
- Easy Foil Dynamic+ : Additional layer of glue to reattach to the side of the window profile



- Belgian production
- Very easy to apply thanks to the multiple protective paper of the adhesive strip (see image).
- **Has been tested extensively at the university of Ghent (see ).**
- Suitable for interior use

Technical properties

	Easy Foil N (+)  	Easy Foil N (+)  	Easy Foil Dynamic (+)  
Type of foil	synthetic fleece foil	synthetic fleece foil	synthetic fleece foil
Standard width	100/130/150/170/200/250/300 mm	100/130/150/170/200/250/300 mm	100/150/200/250/300/400 mm
Airtightness at 50 Pa 	< 0,1 m ³ /(h . M) (tested according to DIN EN 12114) 	< 0,1 m ³ /(h . M)	< 0,1 m ³ /(h . M) (tested according to DIN EN 12114)
Suitable for Blowerdoor	OK	OK	OK
UV stability 	not applicable (interior applications)	3 months	6 months
Fire classification 	E	E	E
µd-value foil	varies between 30 and 40 m	> 1500	moisture variable
Impermeability to driving rain (foil) 	not applicable (interior applications)	not applicable (interior applications)	> 900 Pa (tested according to DIN 1027)
Impermeability to water (foil) 	not applicable (interior applications)	W1	W1 (> 200 cm WS water column test)
Adhesive	Acrylate dispersion	Acrylate dispersion	Acrylate dispersion
Adhesive suitable for exterior applications	Not suitable for exterior applications	OK	OK (tested according to DIN 1027, DIN EN 12114 and IFT-GUIDELINE MO-01/1:2007)
Ageing test under wind pressure			



Tested at the University of Ghent.
Ask for our test reports.

1.c.

Easy Foil System

created by Castelein Sealants

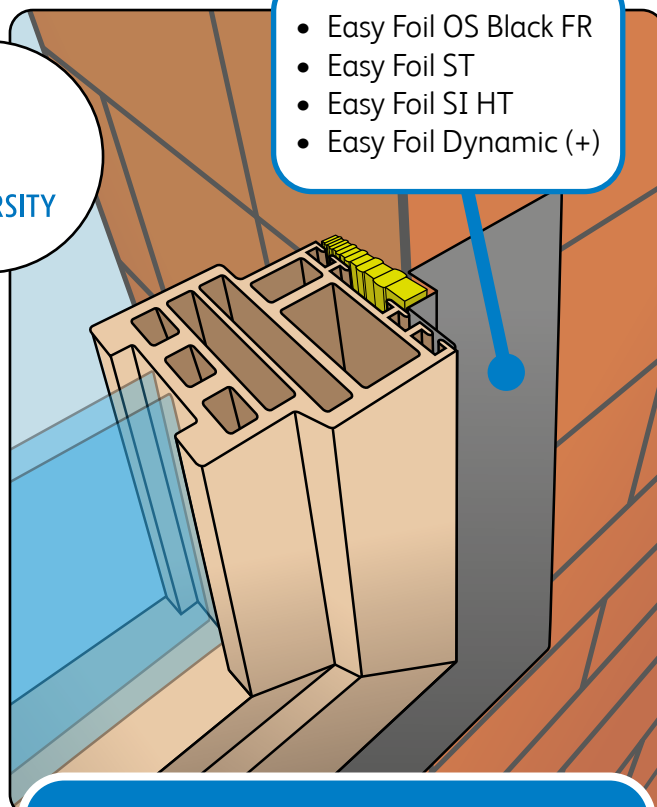
EXTERIOR APPLICATION

The self-adhesive membranes with multiple protective paper (**Easy Foil System**) are becoming increasingly popular. In order to meet the users' requirements, we can customize and adjust several properties of the membrane (based on the users' needs).

Do you need a smooth and easy-to-handle membrane, a membrane which has a high resistance to UV rays, or perhaps a membrane for both internal and external use? We offer multiple solutions in all possible sizes at very competitive prices.



- Easy Foil OS Black FR
- Easy Foil ST
- Easy Foil SI HT
- Easy Foil Dynamic (+)



- Fully self-adhesive
- No need for additional glues
- Easy and quick application



- Open to vapour / airtight / waterproof even in heavy rain



Easy Foil OS Black FR



Easy Foil ST



Easy Foil SI HT



Easy Foil Dynamic


























Easy Foil Dynamic+

- vapour regulating / airtight / waterproof even in heavy rain
- Also suitable for interior use
- Easy Foil Dynamic+ : with extra adhesive on the plasterable side

- Manufactured in Belgium.
- Very simple application process thanks to the self-adhesive foil with multiple protective paper (see image).
- Has been tested extensively at the university of Ghent (see ).
- Suitable for exterior use.

Technical properties

	snijl Easy Foil OS Black FR	snijl Easy Foil ST	snijl Easy Foil SI HT	snijl Easy Foil Dynamic (+)
	 			 
Type of foil	PES membrane with polyurethane coating made of recycled materials	Coated fleece	Coated fleece	synthetic fleece foil
Standard width	100/150/200/250/300/350/400 mm	100/150/200/250/300/400 mm	100/150/200/250/300/400 mm	100/150/200/250/300/400 mm
UV durability 	10 years warranty* Test 5000 hours UV according DIN EN 13859	9 months	3 months	6 months
Fire classification 	B-s1,d0	E	E	E
Exterior view	black and smooth	black and smooth	black and felt	black and felt
Airtightness (tested according DIN EN 12114) 	< 0,1 m ³ /(h.m) 	< 0,01 m ³ /(h.m) 	< 0,01 m ³ /(h.m) 	< 0,1 m ³ /(h.m) 
Protection to downpour (tested according DIN EN 1027) 	> 1200 Pa 	> 1200 Pa 	> 1200 Pa 	> 900 Pa 
Waterproofness (foil) 	> 400 cm water column test (W1)	> 400 cm water column test (W1)	> 400 cm water column test (W1)	> 200 cm water column test (W1)
µd value foil	0,13 +/- 0,03 m	2 +/- 0,5 m	2 +/- 0,5 m	moisture variable
Suppleness membrane	++	+++	+++	++
Aging test membrane (according to IFT Guideline MO-01/1:2007 with interchanging pull and push forces of ± 100kg/m²)	Passed V50 < 0,1 m ³ /(h.m) 	Passed V50 < 0,01 m ³ /(h.m) 	Passed V50 < 0,01 m ³ /(h.m) 	Passed V50 < 0,1 m ³ /(h.m) 

* With partially open façade membrane with max. 40 % joints and max.joint width of 5cm.



Tested by the university of Ghent.
Ask us about our test results.

Classification report on reaction to fire

Easy Foil OS BLACK FR



1 Introduction

This classification report on the reaction to fire specifies the classification assigned to the construction product listed below in compliance with the procedure stipulated in DIN EN 13501-1:2019-05

2 Details of the classified construction product

2.1 General

The construction product is a waterproofing sheet in accordance with DIN EN 13859-2:2014-07. The waterproofing sheet consists of a polyester needle-punched nonwoven coated on one side with thermoplastic polyurethane.

2.2 Description of the construction product

The construction product is described in full in the test reports listed in Section 3.1 that form the basis of the classification.

3 Test reports and test results on which the classification is based

3.1 Test reports

Name of testing laboratory	Name of client	Number of test report	Test procedures
MPA Braunschweig	Castelein Sealants N.V.	2301/263/21-a dated 21/10/2021	DIN EN 13823:2015-02
MPA Braunschweig	Castelein Sealants N.V.	2301/263/21-b dated 21/10/2021	DIN EN ISO 11925-2:2011-02

3.2 Test results

Test procedures	Parameters	Number of tests	Test results	
			Continuous parameters	Discrete parameters
EN 13823	FIGRA _{0,2MJ} [W/s]	3	0	--
	FIGRA _{0,4MJ} [W/s]		0	--
	THR _{600s} [MJ]		0.7	--
	LFS < edge		--	fulfilled
	SMOGRA [m ² /s ²]		0	--
	TSP _{600s} [m ²]		32	--
	Burning droplets		--	no
EN ISO 11925-2	FS ≤ 150 mm	6	--	fulfilled
	Ignition of filter paper		--	no

4 Classification and field of application

4.1 Reference for classification

The classification was conducted in accordance with DIN EN 13501-1:2019-05, Section 11.6.

4.2 Classification

The construction product is classified as follows with regard to its reaction to fire.

B

The additional classification for smoke development is:

s1

The additional classification for burning droplets/falling particles is:

d0

The format for classifying the reaction to fire for construction products, excluding floor coverings and pipe insulation, is:

Reaction to fire	Smoke development		Flaming droplets	
B	s	1	d	0

Classification of reaction to fire: B-s1,d0

4.3 Field of application

This classification is valid for the following end uses and product parameters:

4.3.1 Scope of validity of the end use

Parameters	Scope of validity of the classification
End use	Waterproofing sheet for façades
Substrate	Spacing ≥ 80 mm to other construction materials

4.3.2 Scope of validity of the individual components

Component	Parameters	Scope of validity of the classification
Easy Foil OS BLACK FR	Thickness Weight per unit area	$0.5 \text{ mm} \pm 10\%$ $200 \text{ g/m}^2 \pm 10\%$
Coating	Colour Basis	Black Polyurethane
Nonwoven	Colour Basis	grey Polyester

(*) Request our complete certificate for more detailed information

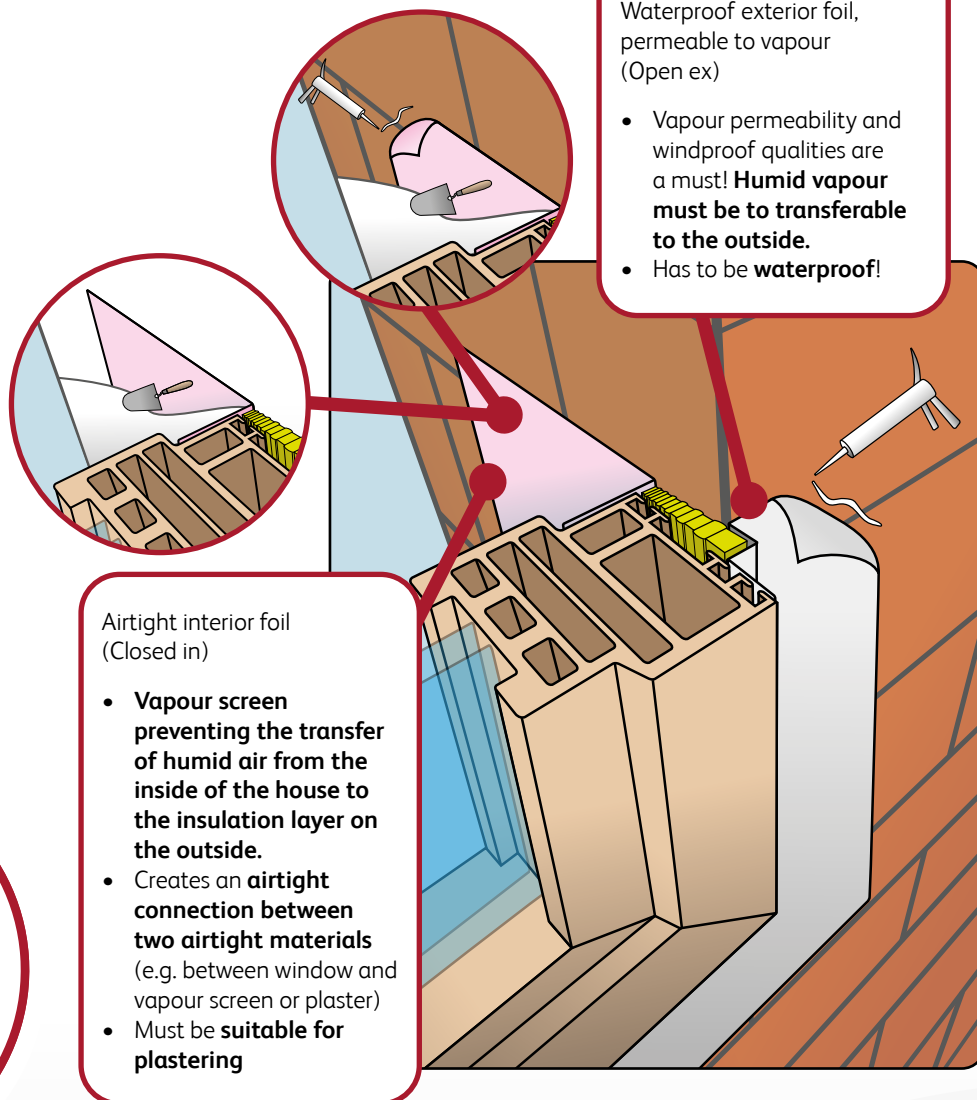
Foil System

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The use of a permeable material for the exterior coating is subsequently of paramount importance.



INTERIOR APPLICATION

Closed in

- Vapour screen / airtight / can be plastered
- Fully customizable widths (up to 1500mm)
- Several versions with butyl and/or acryl glue-strips.



EXTERIOR APPLICATION

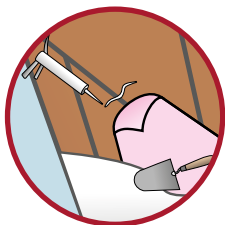
Open ex

- Permeable to vapour / airtight / waterproof
- Fully customizable widths (up to 1500mm)
- Numerous versions with one or two acryl of butyl glue-strips



- 100 % made in Belgium
- Ratio μ d-value interior/exterior foil: ≥ 1500
(minimum requirement according to DIN 4108-3 is 6)

Fixing system

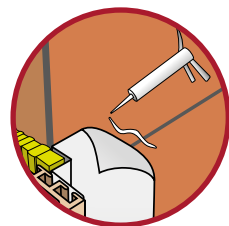


Closed in **gluing**
use CS-PU-FOIL BOND + plastering












Closed in **between two layers of plaster**
plastering + foil + plastering

Open ex **gluing**
use CS-SYNT-FOIL BOND



Technical properties

	Closed in	Open ex
	  	  
Product	polypropylene fleece polypropylene	synthetic foil foil
Suitable for Blowerdoor	OK	OK
UV stability 	not applicable (interior applications)	3 months
Fire classification 	E	E
μd-value foil	60 m	0,04 m
Impermeability to water (foil) 	not applicable (interior applications)	W1 (> 400 cm WS water column test)



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