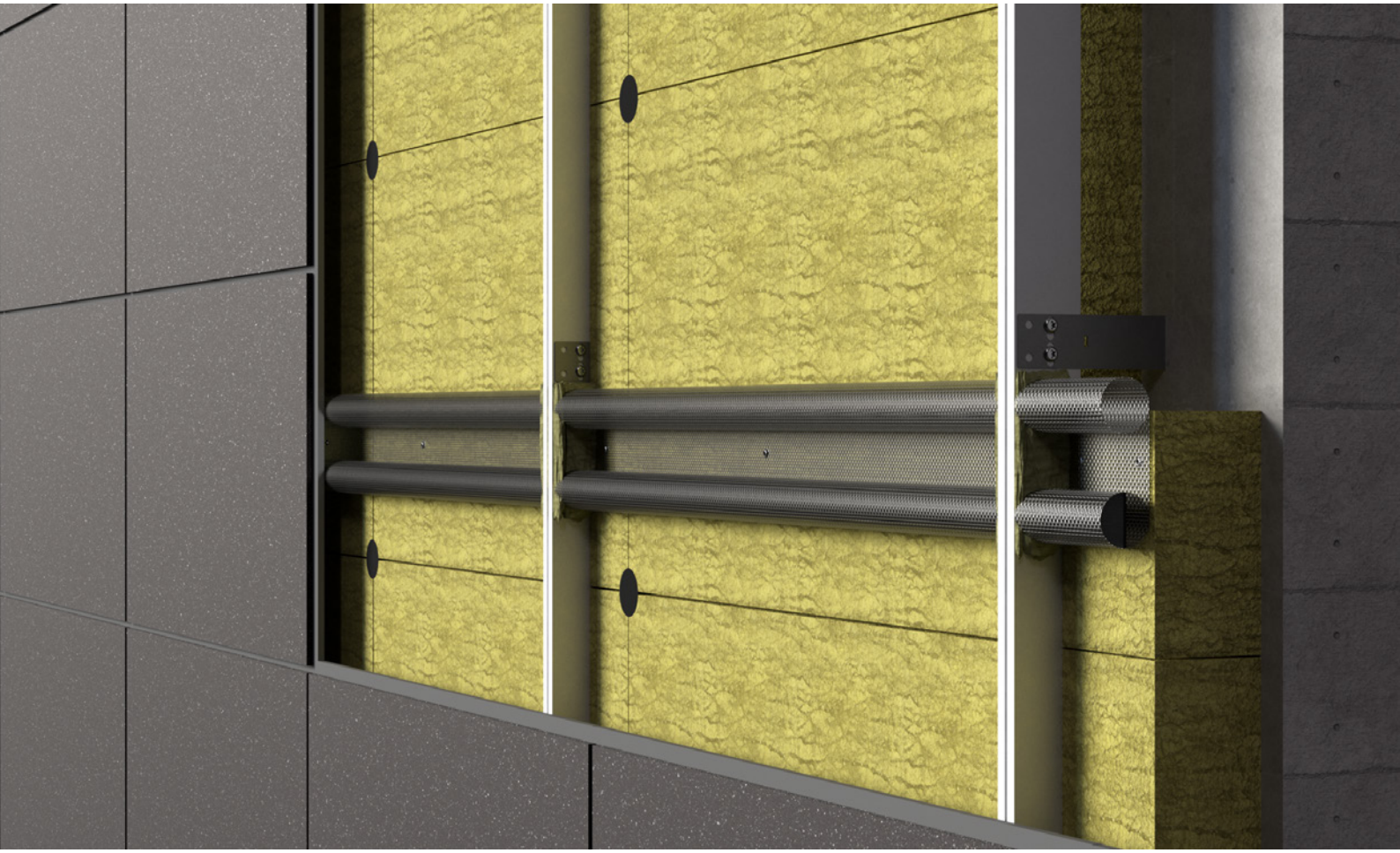
Firebreather® Cavity Barrier

Open state cavity barrier

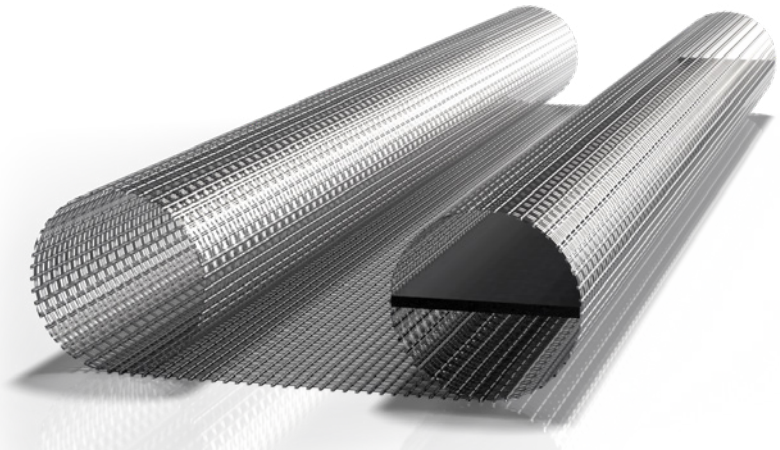
Open-state cavity fire barrier — consisting of a stainless-steel mesh with an intumescent insert, designed to prevent inter-storey fire spread in ventilated rainscreen façades (ventilated façades, VHF).

Fire resistance: EI 30 / EI 60 / EI 90 in accordance with EN 13501-2, depending on the materials present within the ventilated façade.



ECO PLATFORM EPD VERIFIED

Expected lifetime
60 YEARS
in accordance with ASTM E 2923-14



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1. Preliminary remarks

1.1 Use of the instructions

Before starting work, read through these installation instructions completely. Pay particular attention to the following safety instructions.

The authorisation holder assumes no liability for damage caused by failure to comply with these instructions.

Pictorial representations serve as examples only. Installation results may differ in appearance.

Unless stated otherwise, all lengths are specified in mm.

Subject to errors, misprints and changes. All information contained in this brochure reflects the state of the art or, if applicable, the requirements of the pertinent standard at the time of printing (26.02).

All information in this document represents the state of the art at the time of writing or the current version of the standard.

Upon request, flamro will be pleased to provide the relevant legal and technical framework and manufacturer specifications for each individual case.

1.2 Safety instructions

Personal protective equipment

	Wear protective clothing and non-slip shoes.
	Use safety goggles, safety glasses.
	Wear work gloves.

2. Test methods and standards / certificates

All façades and cladding systems are subject to national or local approval for fire protection. Firebreather® Cavity Barrier has been tested in accordance with a number of test standards to ensure its ability to stop the passage of flames, embers, radiation and hot gases.

Certificates of Usability
RISEFR 010-0238
CSTB Appréciation de Laboratoire N° AL16-182
Certificate of Conformity ESL-24-11693
ETA-25/0626: 20.08.25

Product tests
EN 1366-4
pr-EN 1364-6
ASTM 2912
TGD 19
System tests
BS 8414
SP FIRE 105
Lepir 2
NFPA 285

Sustainability / environment	
NEPD-5507-4806-EN	Cavity-Barrier 23 mm × 1130 mm
NEPD-5508-4810-EN	Cavity-Barrier 28 / 30 mm × 1130 mm
NEPD-5380-4700-EN	Cavity-Barrier 36 mm × 1130 mm
NEPD-5509-4804-EN	Cavity-Barrier 50 mm × 1130 mm

Longevity assessment
Expected lifetime: 60 years All building materials tested based on ASTM E2923 – 14 in combination with DIN EN ISO 6270-2.

3. Selected international test results with fire resistance classes

Every construction site has its own requirements and not every detail can be tested in advance. To help you plan as precisely and individually as possible, here is a selection of results from our various international tests.

3.1 Fire resistance classes as per RISEFR 010-0238

Material in cavity	Single or double strip	End seals	Fire resistance class (in acc. with EN 13501-2)
23–36 mm wide cavity			
51 mm × 152 mm softwood	single	stone wool	**EI 30**
13 mm gypsum board	single		**EI 60**
19 mm softwood and 12 mm fibre board	single		**EI 30**
50 mm wide cavity			
Fibre cement board and mineral wool A2, density ≥ 135 kg/m³	single	stone wool	**EI 60**
15 mm gypsum boards type F (Norgips)	single		**EI 90**
Spruce 36 × 198 mm density ≥ 460 kg/m³	single		**EI 60**
Fibre cement board and mineral wool A2, density ≥ 135 kg/m³*	single		**EI 90**
13 mm gypsum board*	single		**EI 60**
13 mm gypsum board*	double		**EI 90**

* See RISEFR 010-0238

3.2 Fire resistance classes as per CSTB approval N° AL16-182

36 mm wide cavity					
Single or double strip	Material in cavity		Fire resistance class in acc. with EN 13501-2		
	left	right	E	I	EI
double	wood	wood	90	58	**EI 45**
single	wood	wood	61	48	**EI 45**
double	13 mm gypsum board	13 mm gypsum board	90	90	**EI 90**
single	13 mm gypsum board	13 mm gypsum board	90	87	**EI 60**
single	19 mm softwood	12 mm fibre board	56	41	**EI 30**

3.3 Fire resistance classes as per ESL-24-11693

28 mm wide cavity		
Single or double strip	Thermal insulation of façade	Fire resistance class (in acc. with EN 13501-2)
single	mineral wool thickness ≤ 100 mm, bulk density ≥ 50 kg/m³	**E 90** **I 45**
	without insulation	**E 120** **I 60**
50 mm wide cavity		
Single or double strip	**Thermal insulation of façade**	**Fire resistance class (in acc. with EN 13501-2)**
single	mineral wool thickness ≤ 100 mm, bulk density ≥ 50 kg/m³	**E 120** **I 45**
	without insulation	**E 120** **I 90**

Feel free to contact our support for an individual assessment of your system's fire protection.

4. Products

Article	Length [mm]	Fire rating	Width [mm] (Tolerance + 4)	Height [mm] (Tolerance ± 7)	Art. no.
Firebreather® Cavity Barrier 23 mm	1130	EI 30	23	112	FBH-23-1130-30
	530	EI 30	23	112	FBH-23-530-30
	1130	EI 60	23	112	FBH-23-1130-60
	530	EI 60	23	112	FBH-23-530-60
Firebreather® Cavity Barrier 28 / 30 mm	1130	EI 30	30	87	FBH-30-1130-30
	530	EI 30	30	87	FBH-30-530-30
	1130	EI 60	30	87	FBH-30-1130-60
	530	EI 60	30	87	FBH-30-530-60
Firebreather® Cavity Barrier 36 mm	1130	EI 30	36	112	FBH-36-1130-30
	530	EI 30	36	112	FBH-36-530-30
	1130	EI 60	36	112	FBH-36-1130-60
	530	EI 60	36	112	FBH-36-530-60
Firebreather® Cavity Barrier 50 mm	1130	EI 60	50	150	FBH-50-1130-60
	530	EI 60	50	150	FBH-50-530-60
	1130	EI 90	50	150	FBH-50-1130-90
	530	EI 90	50	150	FBH-50-530-90

5. Technical Data

5.1 Mesh material

Stainless steel mesh (AISI304) with wire diameter 0.56 mm and mesh width 2 mm.

5.2 Air Permeability (informative value)

In its normal condition, the Firebreather® Cavity Barrier remains open, allowing natural façade ventilation. The airflow rate through the open barrier has been measured at different pressure levels. These figures are provided for information only and are not part of the fire resistance assessments.

Pressure [Pa]	Air flow per cavity width [m³/h]		
	50 mm	30 mm	23 mm
5	119	108.2	68
10	181	165.5	108
15	230	195	135

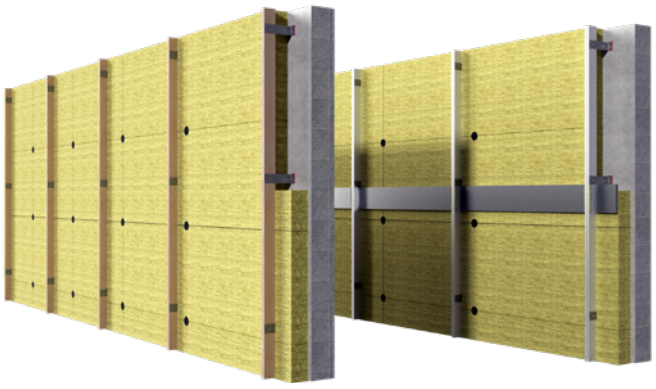
5.3 Intumescent strip KERAFIX® Flexpan 200 NG-A

Composition	halogen free, expanding construction material on the basis of expandable graphite
Certificate	ETA-15/0719
Expansion	22 to 37
Start of reaction [°C]	from approx. 175
Expansion	0.6 to 1.3 (300 °C, method 4)

Storage	Store in a dry place.
Safety information	Consult the safety data sheet for further information.
Disposal	Dispose of the product according to local standards and regulations.

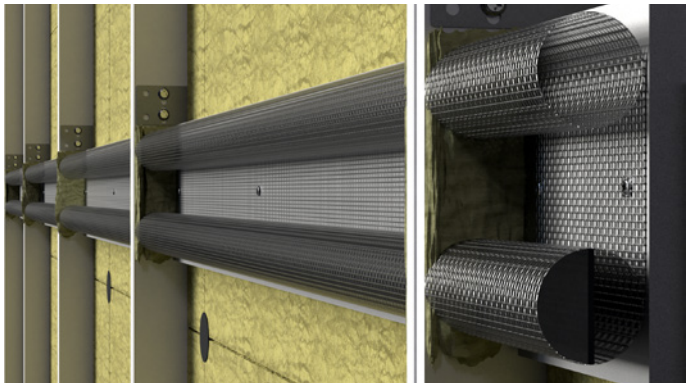
6. Installation steps

1. Wall before installation of Firebreather® Cavity Barrier (profiles made of wood, aluminium or steel with wall brackets).

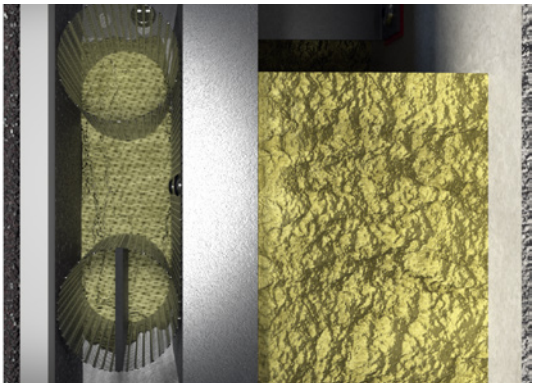


2. Firebreather® Cavity Barrier lengths are cut to fit by grinder or stainless steel metal cutting circular saw.

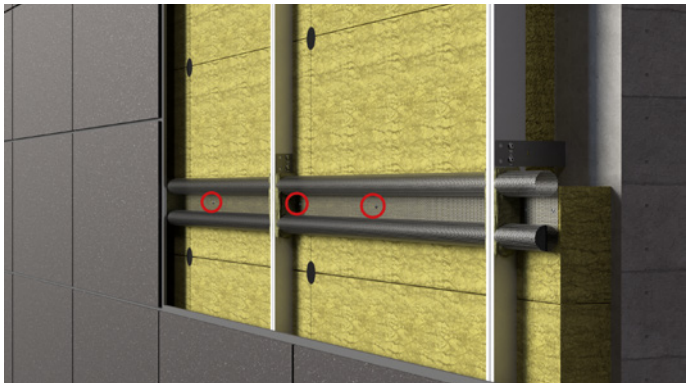
3. Install the Firebreather® Cavity Barrier continuously with the intumescent material in the lower roll. Install directly on the concrete wall or the mineral wool or on continuous crossbars without cavities.



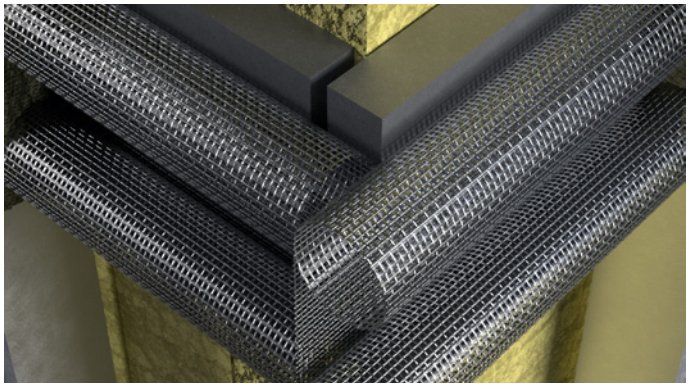
4. The Firebreather® Cavity Barrier must be installed in such a way that the intumescent strip is situated in the lower mesh and in a vertical position.



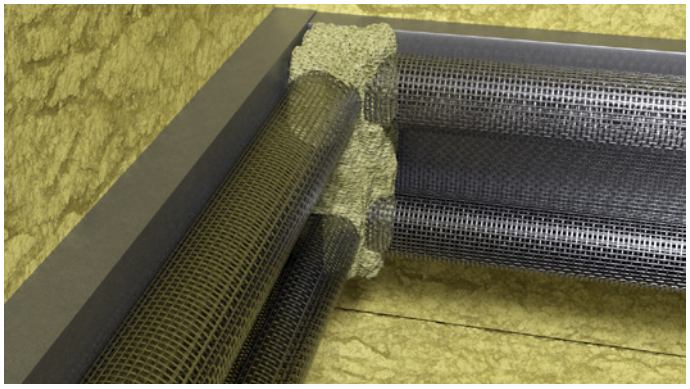
5. Fasten the Firebreather® Cavity Barrier
   - either directly on the mineral wool using pigtail screws (2–3 screws per meter)
   - or onto the substrate or crossbar using suitable fasteners



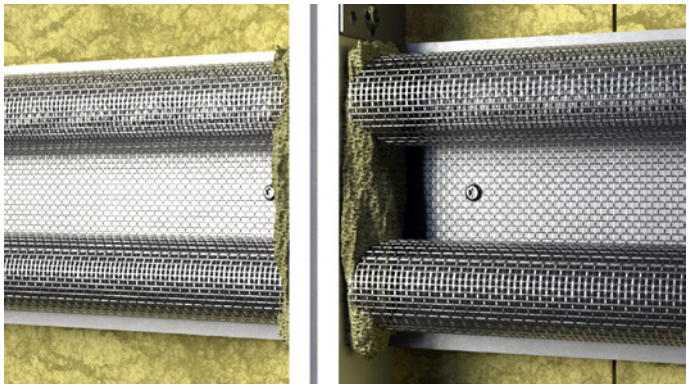
6. Install with overlap at the outside corner.



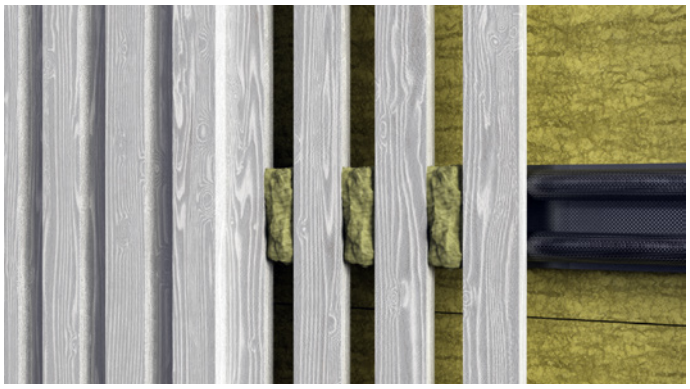
7. Seal the inside corner with stone wool or similar fireproof material.



8. To ensure the best fit, stone wool or similar materials can be used to close any gaps between the cavity barrier and the studs.



9. In case the barrier does not fit tightly because of additional cavities, use stone wool or equivalent material for sealing. The sealing height must correspond to the Firebreather® Cavity Barrier.



10. Install the cladding directly on top of the Firebreather® Cavity Barrier.