Eurovent®

FIRE RETARDING UNDERLAYS

WE DEVELOP ROOFING IDEAS

Eurovent®

Our products are manufactured with
the use of the newest technology and involvement
of the building insulation specialist. They have joined their
over 25-year experience in design, production and distribution
of breather membranes, housewraps and vapour barriers
to produce and provide you with the best products available.
That is why Eurovent® brand brings the latest achievements
and innovative solutions in the building insulation field.

In the production process of Eurovent® products
the best raw materials available on the market are used.
Strict inspection allows to manufacture qualitative,
safe, effective and durable products.

German Quality and Technology

Eurovent Worldwide

Company

Sales Partners

25 YEARS OF EXPERIENCE

48 COUNTRIES

250 STRATEGY CLIENTS

350 PRODUCTS IN OFFER

			Denmark	Poland	Slovakia
		Switzerland	Austria	Hungary	Greece
		France	Italy	Netherlands	Morocco
	Ukraine	Moldova	Albania	Serbia	Spain
	USA	Belarus	Latvia	Czech Republic	Romania
Belgium	Estonia	Croatia	Lithuania	Norway	Russia
Bulgaria	Finland	Malaysia	Azerbaijan	Slovenia	United Kingdom
Macedonia	Turkey	Uzbekistan	Sweden	Ireland	Kazakhstan
Germany	Japan	Georgia	Taiwan	Republic of Korea	
Kyrgyzstan	India	Canada	Bosnia and Herzegovina		

Moisture in building

One of the main reasons for producing an airtight building is to protect the structure against moisture originating from air leakages. The transmission of water vapour through the construction is led by the two processes.

The first process involves flow of the air which takes place through the gaps or other openings in a wall.

When the indoor temperature is higher than outdoors; warm air inside a room naturally tries to move outside of the building or towards the colder areas.

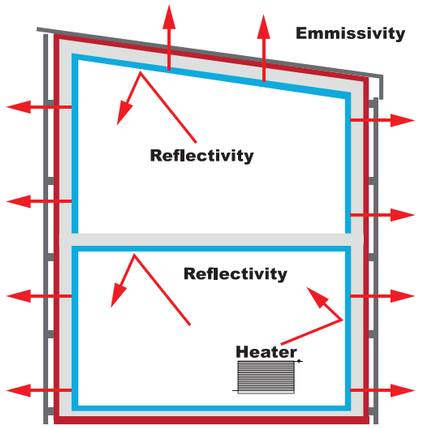
Such air movements are observed around the roof, external walls and other elements defined as part of the airtight building envelope, where these air flows try to reach cold parts of the construction behind the thermal insulation layers.

When the outer temperature is higher than inside the building, the opposite happens. The second process regards vapour diffusion by different vapour concentrations.

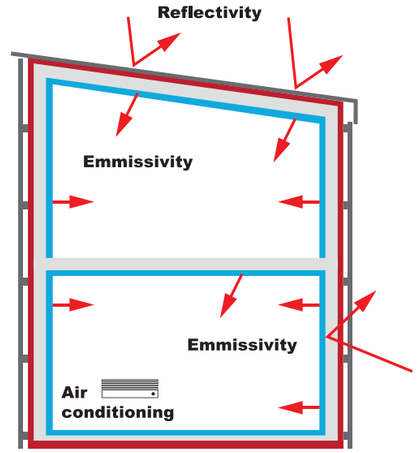
In the buildings, the moisture is continuously released by people, plants or animals. Due to pressure difference around a wall, water vapor tends to have an equal concertation on both sides of the surface, hence the movement from the high pressure to the low-pressure area.

The control of air flow is important for several reasons: to prevent moisture damage, reduce energy losses and to ensure occupant comfort and health.

A continuous airtight barrier system is the combination of interconnected materials, flexible sealed joints and components of the building envelope that provides the airtightness of the building enclosure and the separateness of heated and unheated spaces.



WINTER



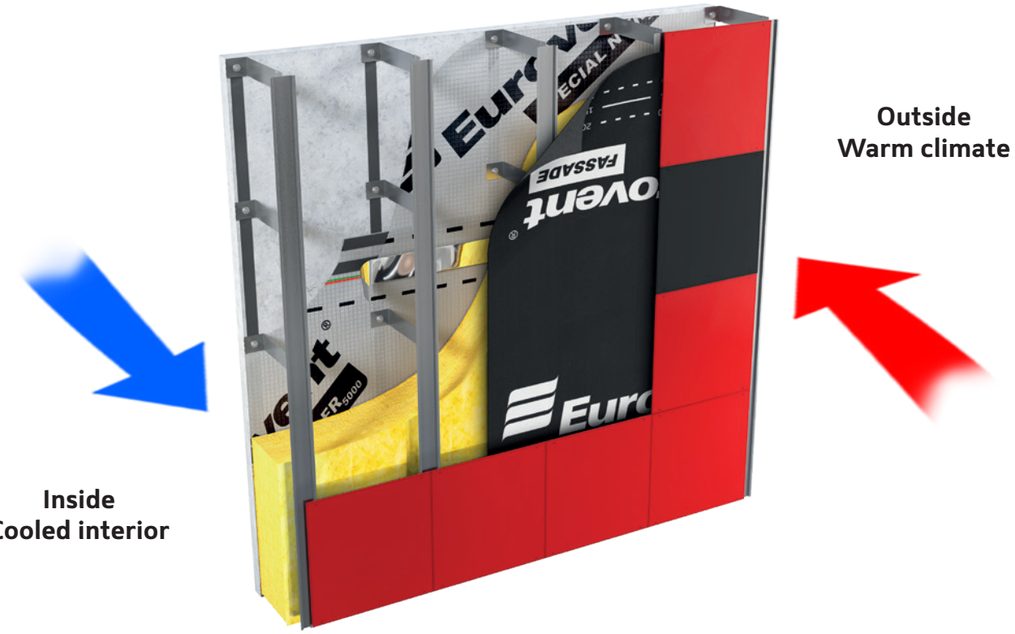
SUMMER

In construction, vapour barriers are used to eliminate building condensation within the structure. Application of these barriers is depended on the climate settings.

Air barriers such as a housewrap are designed as insulation against wind, rain in wall and facade constructions.

The air barrier and vapor barrier each serve a specific function in controlling moisture within the building.

When warm meets cold water vapour develops.



Fire resistance

The harmonized European Fire Standards are a set of test standards that have been accepted by all countries within the European Economic Community. This allows manufacturers to produce or import products that have been tested to a common standard without the need to test in each member state. Testing to these standards is now accepted in all EEC countries.

Reaction to fire

If a fire is able to find sufficient flammable materials it will quickly spread through an area. It is therefore crucial to use materials of limited combustibility on key surfaces within a room, such as ceilings and walls.

The use of such materials can dramatically reduce the speed flames spread through an area as well as minimize their contribution to the fire.

The European standard EN 13501-1: Reaction to Fire provides a number of performance criteria to measure the fire characteristics of building products. These cover spread of flame and contribution to fire as well the generation of smoke and the production of burning droplets. The table below provides an overview of the available classifications.

The Declaration of Performance

„DoP" is the main document that will normally be required by local authority officers to show that the intended ceiling/ wall system will meet the specified performance level.

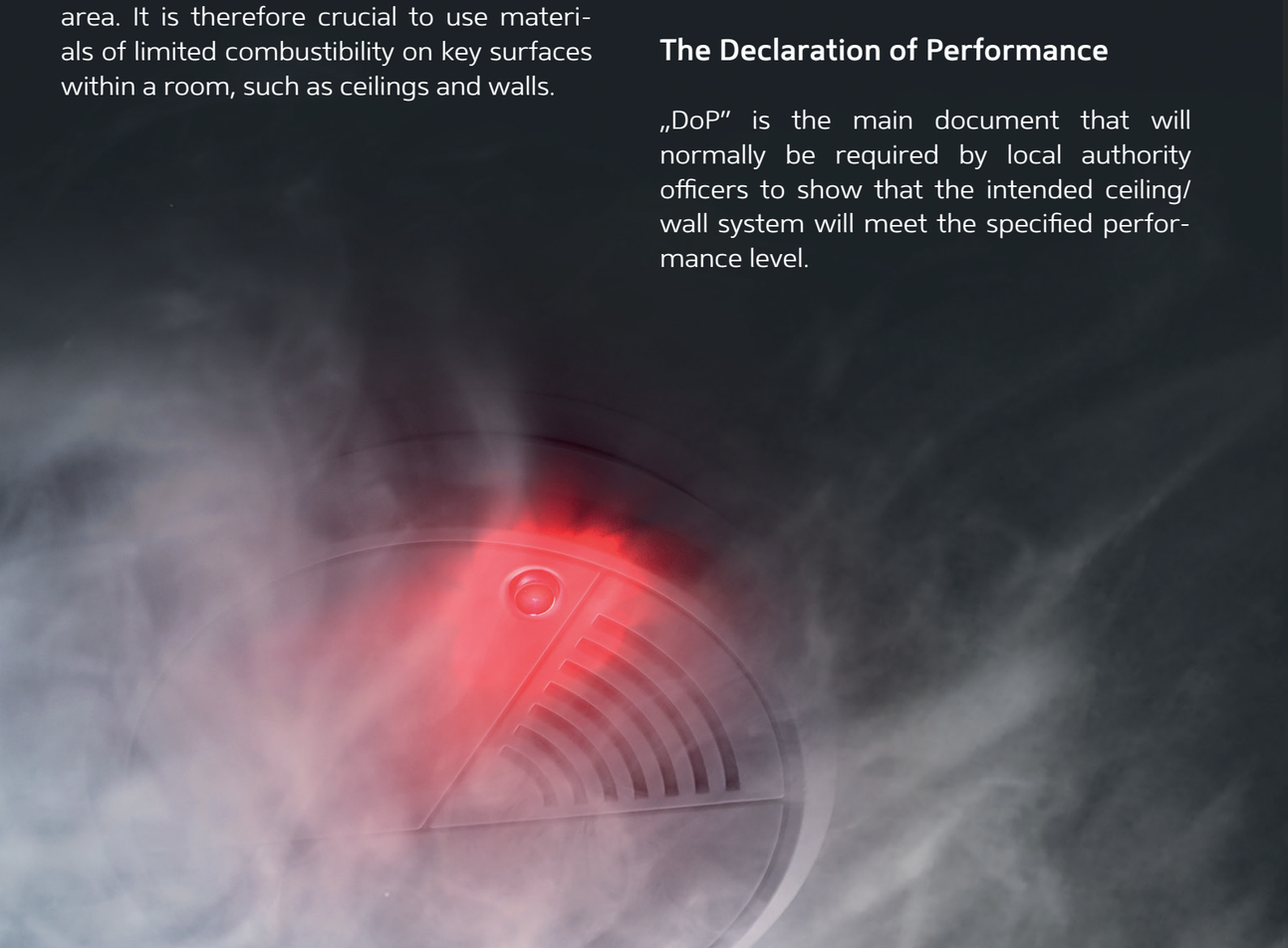


Table legend:

Not applicable · Smoke and burning droplets · No smoke and no burning droplets · Smoke and no burning droplets · No smoke and burning droplets

Additional requirements	European class according to EN 13501-1						
	A1	A2	B	C	D	E	F
-	○	–	–	–	–	○	○
s1 d0	–	●	●	●	●	–	–
s1 d1	–	◐	◐	◐	–	–	–
s1 d2	–	◐	◐	◐	◐	–	–
s2 d0	–	◐	◐	◐	◐	–	–
s2 d2	–	–	–	–	◐	–	–
s3 d0	–	◐	–	◐	◐	–	–
s3,d2	–	●	●	●	●	–	–
d2	–	–	–	–	–	●	–

The additional designations are:

- **Smoke**

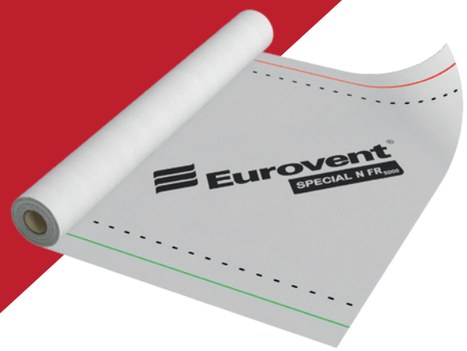
  s1 – little or no smoke generation;
  s2 – medium smoke generation;
  s3 – heavy smoke generation.

- **Burning droplets**

  d0 – no droplets within 600 seconds;
  d1 – droplet form within 600 s but do not burn for more than 10 seconds;
  d2 – not as d0 or d1.

Country	Test standard	Classification
EC member states	EN 13501-1	**A2 s1 d0; B s1 d0**
Switzerland	Guide to fire regulations 1976	VI q.3 virtually non-combustible, smoke level low
USA	ASTM E 84-97 a	Class I

SPECIAL N FR$_{5000}$



- Reinforced vapour-insulation roof and facade foil. Made of polymer foil and HDPE mesh which ensures increased resistance to tearing.
- The product has got elevated fire retardance which meets the requirements of new legislation of Dubai Municipality „Circular 215".
- Available in two weights: 110 g/m^2 and 140 g/m^2.
- Eurovent® SPECIAL N FR$_{5000}$ reached the fire reaction classification of B-s1, d0 according to the EN 13501.
- At the same time the product is air-, vapour- and watertight, reduces the condensation risk. It prevents the insulation against warm, moist air escaping from inside of the building. The vapour barrier is recommended to be applied both in new constructions and renovation projects.

Fire class B
B-s1 d0

Certified by CSI.

› SPECIAL N FR$_{5000}$
Ceiling/Floor vapour barrier

1. Eurovent® SPECIAL N FR$_{5000}$
2. Eurovent® AKTIV FR
3. Eurovent® FASSADE
4. Facade construction
5. Ceiling
6. Plasterboard construction
7. Floor
8. Window construction

Technical data SPECIAL N FR$_{5000}$

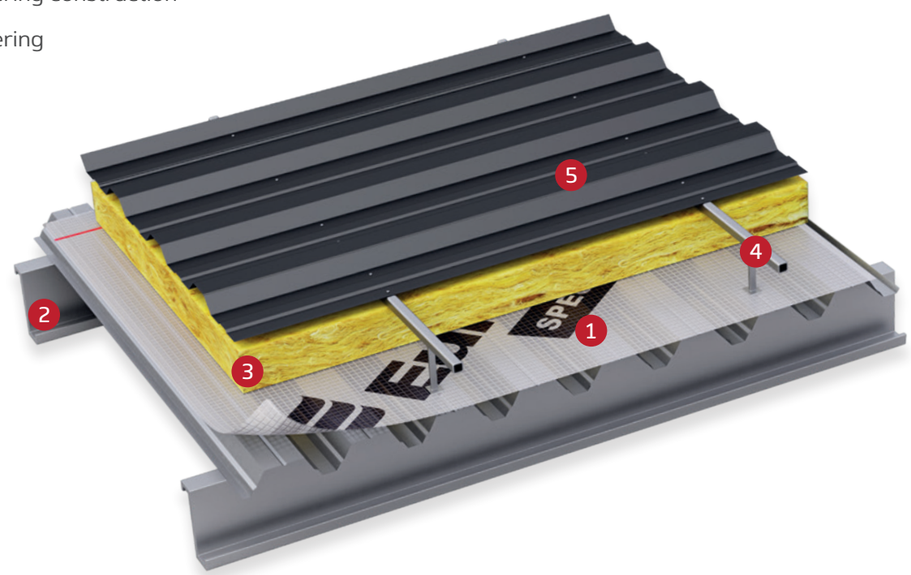
Roll size	Mass per unit	Sd value	Vapour resistance	Reaction to fire	UV protection	Rolls per pallet
2 m x 50 rm	ca. 110 g/m^2 ca. 140 g/m^2	≥ 50 m ≥ 110 m	≥250 MNs/g ≥550 MNs/g	B-s1, d0	up to 3 months*	120 rolls 100 rolls

PARAMETER	NORM	SPECIAL 110 N FR$_{5000}$	SPECIAL 140 N FR$_{5000}$
Water tightness	EN 1928	W1	W1
Tensile strength MD	EN 12311-1	200 N/50 mm	200 N/50 mm
Tensile strength CD	EN 12311-1	130 N/50 mm	135 N/50 mm
Elongation MD	EN 12310-1	15 %	19 %
Elongation CD	EN 12310-1	16 %	17 %
Tearing Resistance MD	EN 12310-1	≥ 110 N (+/-10%)	≥ 110 N (+/-10%)
Tearing Resistance CD	EN 12310-1	≥ 110 N (+/-10%)	≥ 110 N (+/-10%)

** UV stabilization even up to 3 months according to artificial ageing performed in the laboratory related to the conditions of average sun exposure for the climate in Central Europe.*

› SPECIAL N FR$_{5000}$
Roof system

1. Eurovent® SPECIAL N FR$_{5000}$
2. Construction
3. Thermal insulation
4. Roof covering construction
5. Roof covering



AKTIV FR

- Three-layer aluminum vapour control.
- Made of polypropylene nonwoven, functional film and aluminum coating which enables reflection of heat rays towards the inside of the building.
- Unlike in case of vapour-insulation foils, active properties of the membrane allow to prevent condensation.
- It possesses high fire behaviour – Class B-s1, d0 according to the EN 13501.
- The product is available up to 3,0m width.
- SYSTEM SK2 – two integrated self adhesive tapes are available on request.

Fire class B
B-s1 d0

Certified by BTTG.

SK2

› AKTIV FR
Open joint cladding system

1. Eurovent® AKTIV FR
2. Eurovent® FASSADE
3. Wall concrete
4. Facade construction
5. Thermal insulation
6. Facade cladding

Technical data AKTIV FR

Roll size	Mass per unit	Sd value	Vapour resistance	Reaction to fire	UV protection	Rolls per pallet
1,5 m x 50 rm 3,0 m x 50 rm	ca. 150 g/m²	≥ 150 m	≥750 MNs/g	B-s1, d0**	up to 3 months*	40 rolls

PARAMETER	NORM	VALUE	UNIT
Temperature range	–	-40 do +80 / +100***	°C
Water-tightness	EN 1928	W1	–
Emissivity	EN 15976	< 0,05	ε
Tensile strength MD	EN 12311-1	≥255 N/50 mm (+/- 50 N/50 mm)	N/50 mm
Tensile strength CD	EN 12311-1	≥200 N/50 mm (+/- 50 N/50 mm)	N/50 mm
Tearing Resistance MD	EN 12310-1	≥160 N (+/-30 N)	N
Tearing Resistance CD	EN 12310-1	≥160 N (+/-30 N)	N

** UV stabilization even up to 2 months according to artificial ageing performed in the laboratory related to the conditions of average sun exposure for the climate in Central Europe.*
*** Supported with substrate.*
**** Limited time exposure.*

FASSADE

- Vapour-permeable wind barrier.
- Made of polyester nonwoven and polymer coating.
- Product is characterized by extreme resistance to UV radiation which allows exposure for up to 12 months.
- SYSTEM SK2 – two integrated self adhesive tapes are available on request.

Fire class B
B-s1 d0

Certified by ITB.

SK2

Technical data FASSADE

Roll size	Mass per unit	Sd value	Windproof	Reaction to fire	UV protection	Rolls per pallet
1,5 m x 50 rm	ca. 210 g/m²	ca. 0,02 m	< 0,06 m³/m²/h/100Pa	B-s1, d0	up to 12 months*	40 rolls

PARAMETER	NORM	VALUE	UNIT
Vapour-permeability	–	ca. 3000	g/m²/24h
Temperature range	–	-40 do +80 / +100**	°C
Water-tightness	EN 1928	W1	–
Tensile strength MD	EN 12311-1	≥ 300 (+/- 70)	N/50 mm
Tensile strength CD	EN 12311-1	≥ 200 (+/- 70)	N/50 mm
Tearing Resistance MD	EN 12310-1	≥ 120 (+/-30)	N
Tearing Resistance CD	EN 12310-1	≥ 120 (+/-30)	N

** UV stabilization even up to 12 months according to artificial ageing performed in the laboratory related to the conditions of average sun exposure for the climate in Central Europe.*
*** Limited time exposure.*

› FASSADE
Facade cladding system

1. Eurovent® FASSADE
2. Eurovent® SPECIAL N FR$_{5000}$
3. Eurovent® ALUFIX
4. Eurovent® TOPBAND
5. Thermal insulation
6. Facade cladding

Fire class B
B-s1 d0

Certified by BTTG.

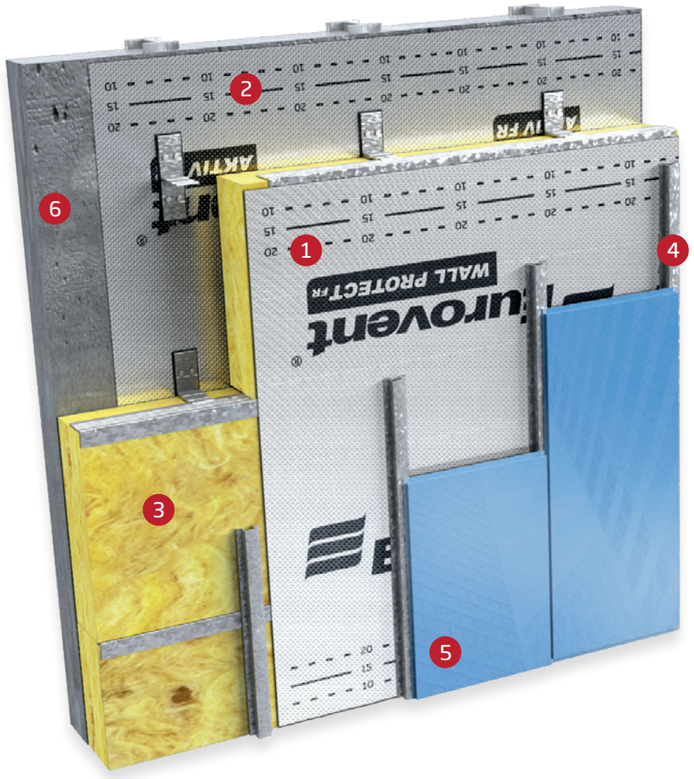
SK2

WALL PROTECT FR

- Three-layer vapour-permeable housewrap.
- Made of polypropylene nonwoven, functional film and aluminum coating which reflects up to 95% of radiant heat.
- The high level of solar resistance has been proven to reduce energy consumption.
- It protects facade constructions against wind and moisture and is highly fire retardant.
- The product contains special stabilization additives.
- SYSTEM SK2 – two integrated self adhesive tapes are available on request.

› WALL PROTECT FR
Facade cladding system

1. Eurovent® WALL PROTECR FR
2. Eurovent® AKTIV FR
3. Thermal insulation
4. Facade construction
5. Facade cladding
6. Wall

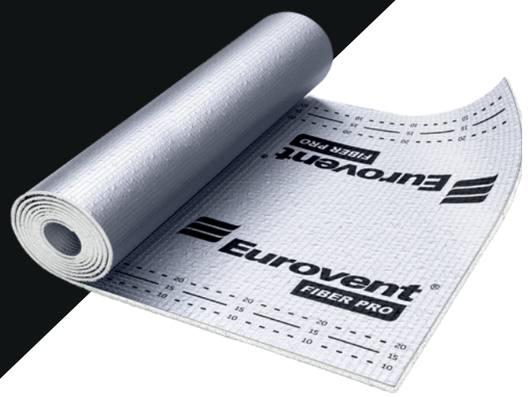


Technical data WALL PROTECT FR

Roll size	Mass per unit	Sd value	Windproof	Reaction to fire	UV protection	Rolls per pallet
1,5 m x 50 rm 3,0 m x 50 rm	ca. 150 g/m²	ca. 0,14-0,18 m	< 0,06 m³/m²/h/100Pa	B-s1, d0**	up to 4 months*	50 rolls

PARAMETER	NORM	VALUE	UNIT
Vapour-permeability	–	ca. 144	g/m²/24h
Temperature range	–	-40 do +100	°C
Water-tightness	EN 1928	W2	–
Emissivity	EN 15976	0,04	ε
Tensile strength MD	EN 12311-1	≥250 (+/-50)	N/50 mm
Tensile strength CD	EN 12311-1	≥200 (+/-50)	N/50 mm
Tearing Resistance MD	EN 12310-1	≥160 (+/-30)	N
Tearing Resistance CD	EN 12310-1	≥160 (+/-30)	N

** UV stabilization even up to 4 months according to artificial ageing performed in the laboratory related to the conditions of average sun exposure for the climate in Central Europe.*
*** Supported with substrate.*



FIBER PRO

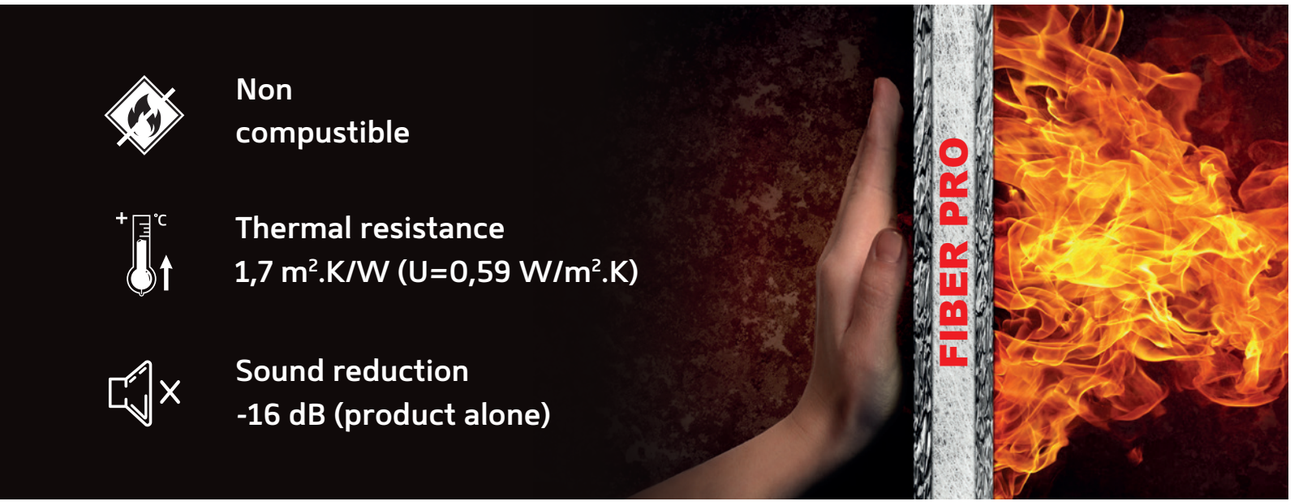
- Vapour-permeable wind barrier.
- Made of pure aluminum foil reinforced with glass fibers, waterproof film, high density layer with E glass filaments and breather pure aluminum foil.
- Product provides both weather barrier and insulation functions. Ideal for refurbishment or new build projects.
- Non combustible Class A2 - s1, d0 - according to the EN 13501
- Tear resistant, airtight ideal for building envelope, eliminates thermal bridges.
- High insulating properties (λ = 0,029 W/mK)
- Thermal comfort during summer and winter (reflective insulation) – 95% reflectivity

ÉMISSIONS DANS L'AIR INTÉRIEUR* A+ (A+ A B C)

Fire class A
A2-s1 d0

Certified by LNE.

** Information on indoor air emission levels of volatile substances, with a risk of toxicity by inhalation, on a class scale ranging from A+ (very low emssions) to C (high emissions).*



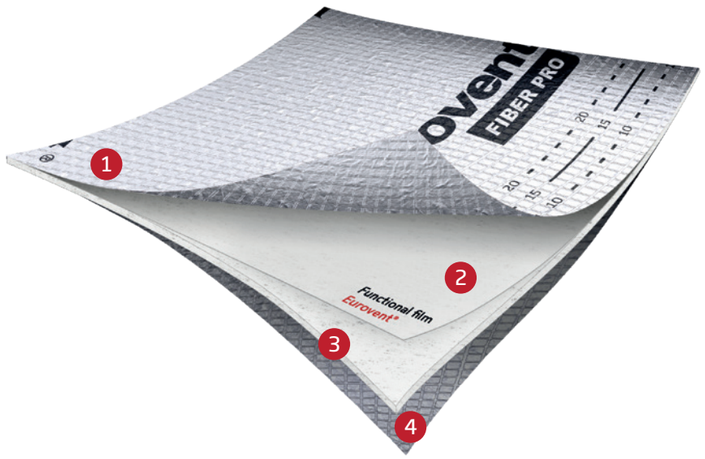
Non compustible

Thermal resistance
1,7 m².K/W (U=0,59 W/m².K)

Sound reduction
-16 dB (product alone)

› Composition of FIBER PRO

1. Aluminum reflective
2. Functional film
3. Fiberglass
4. Aluminum



Technical data FIBER PRO

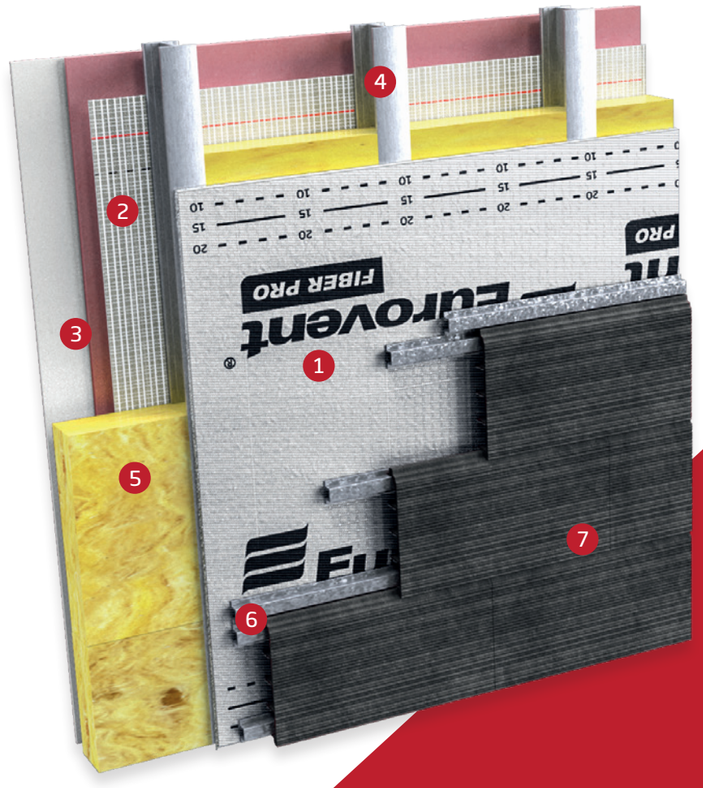
Roll size	Mass per unit	Sd value	Sound reduction	Thermal resistance	Reaction to fire	Rolls per pallet
1,12 m x 18 rm	ca. 1388 g/m²	ca. 0,05 m	-16 dB (product alone)	1,7 m².K/W	A2-s1, d0 non combustible	12 rolls

PARAMETER	NORM	VALUE	UNIT
Vapour-permeability	–	ca. 0,25	MNs/g
Thermal conductivity (λ)	–	0,029	W/mK
Water-tightness	EN 1928	W1	–
Thickness		8	mm
Emissivity/ Reflectivity	EN 15976	95/5	%
Elongation MD/CD	EN 12311-1	≥6 (+/-2) / ≥4 (+/-2)	%
Tensile strength MD	EN 12311-1	630 (+/-70)	N/50 mm
Tensile strength CD	EN 12311-1	630 (+/-70)	N/50 mm
Tearing Resistance MD	EN 12310-1	275 (+/-50)	N
Tearing Resistance CD	EN 12310-1	280 (+/-50)	N

** UV stabilization even up to 4 months according to artificial ageing performed in the laboratory related to the conditions of average sun exposure for the climate in Central Europe.*

› FIBER PRO Facade cladding system

1. Eurovent® FIBER PRO
2. Eurovent® SPECIAL N FR5000
3. Plasterboard
4. Wall construction
5. Thermal insulation
6. Facade construction
7. Facade cladding



AKTIV PRO

- Reflective vapour barrier made of pure aluminium foil on the top and bottom and high density layer with E glass filaments.
- Thanks to its high density fibber-glass layer the product assures both: effectiveness on heat transfers by conduction as well as thermal and acoustic comfort during summer and winter.
- Allows to efficiently insulate all walls with a maximum space saving -46% on the additional insulation thickness.
- The product possesses high reflectivity (97%).
- Non-combustible product Class A1 - according to the EN 13501. The product ensures security for assets and people during rescue teams operations.
- High insulating properties (λ = 0,028 W/mK)

ÉMISSIONS DANS L'AIR INTÉRIEUR* A+ (A+ A B C)

Fire class A
Class A1

Certified by LNE.

** Information on indoor air emission levels of volatile substances, with a risk of toxicity by inhalation, on a class scale ranging from A+ (very low emssions) to C (high emissions).*

Technical data AKTIV PRO

Roll size	Mass per unit	Sd value	Sound reduction	Thermal resistance	Reaction to fire	Rolls per pallet
1,0 m x 25 rm 1,93 m x 15 rm	ca. 830 g/m²	ca. 4000 m	-13 dB (product alone)	1,55 m².K/W	A1 non combustible	12 rolls

PARAMETER	NORM	VALUE	UNIT
Vapour-permeability	–	ca. 20000	MNs/g
Thermal conductivity (λ)	–	0,028	W/mK
Water-tightness	EN 1928	W1	–
Thickness	–	6	mm
Emissivity/ Reflectivity	EN 15976	95/5	%

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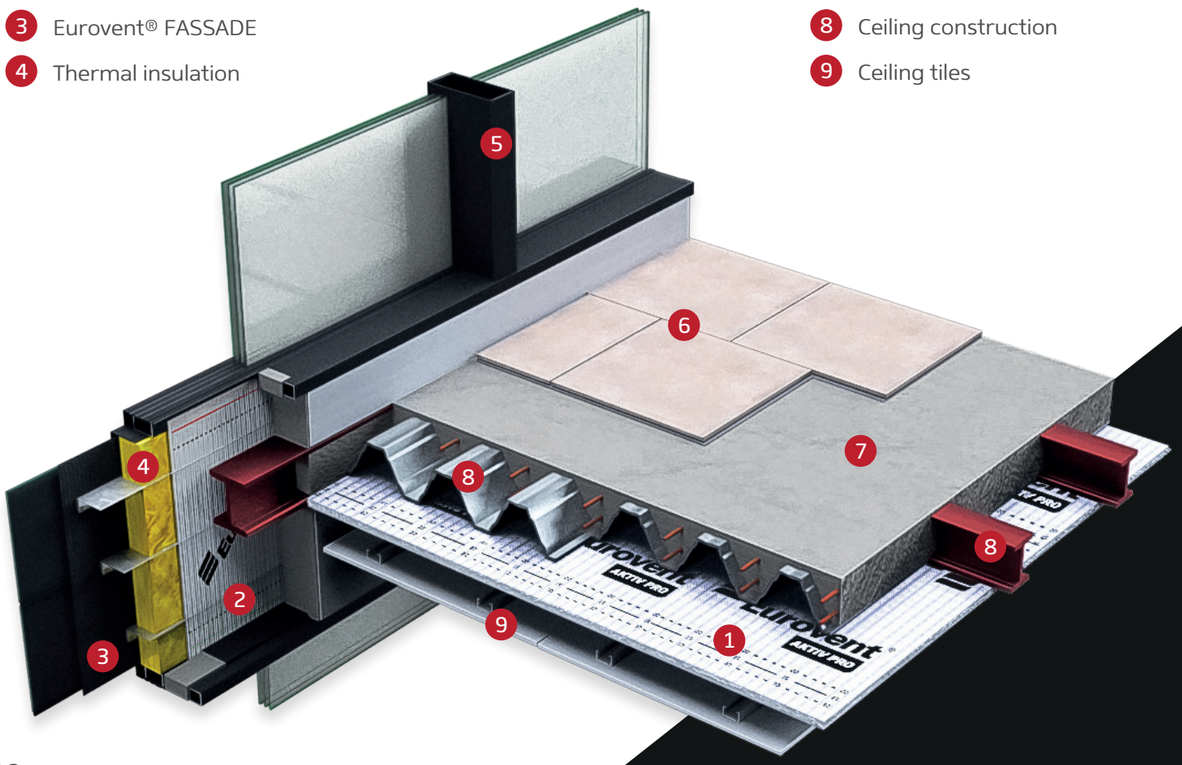
› AKTIV PRO
Ceiling/Floor insulation

1. Eurovent® AKTIV PRO
2. Eurovent® SPECIAL N FR5000
3. Eurovent® FASSADE
4. Thermal insulation
5. Window
6. Floor
7. Ceiling
8. Ceiling construction
9. Ceiling tiles



NOTES

ICONS

Roll size

Vapour resistance

Reaction to fire

Sound reduction

Mass per unit

UV protection

Thermal resistance

Sd value

Rolls per pallet

Windproof

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SAMPLES OF EUROVENT® FIRE RETARDING UNDERLAYS

SPECIAL N FR 5000

AKTIV FR

AKTIV PRO

FIBER PRO

WALL PROTECT FR

FASSADE

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