

BrandShield EI

Product Description

BrandShield EI from Tenmat is a revolutionary fire barrier for use in roof eaves and façades where there are requirements for EI fire ratings to EN1366-4.

BrandShield EI's innovative design combined with the high performance intumescent material enables both ventilation of the roof / loft space or facade together with instant fire resistance up to EI 120. Both flames and high temperatures are blocked from the start of the fire.

The product is based on a high performance intumescent material that offers a high expansion rate whilst producing very little smoke; it is free from halogens.

BrandShield EI fits cavities up to 40mm in one product size and is folded to fit the specific cavity width during installation. BrandShield EI is, like other products from Tenmat, very easy to cut to desired length and quick to install.

Product Details

Technical Details

- Fire rated product that offers EI 30/60/120 depending on construction materials for ventilated cavities in façades and eaves
- Fire resistance from the first second - developed to stop both flames and high temperatures from the very start of the fire
- Ventilated design - provides necessary ventilation in air gaps for eaves and façades
- For cavities up to 40mm wide
- Supplied in sizes of 3 x 142 x 1000mm
- Listed in Sundahus, Byggvarubedomningen and BASTA environmental ratings, complies with Nordic Eco Label

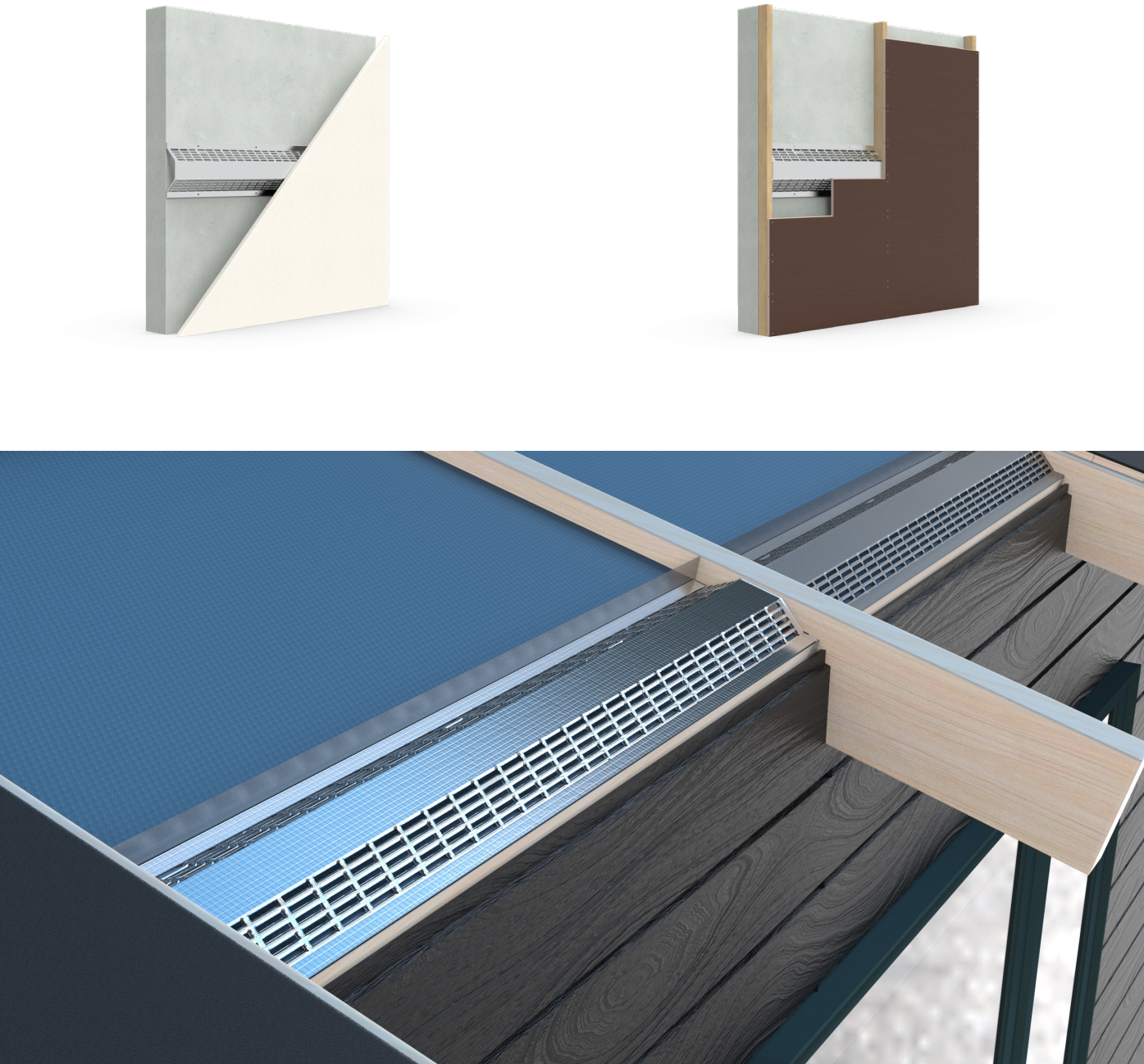
Installation and Maintenance

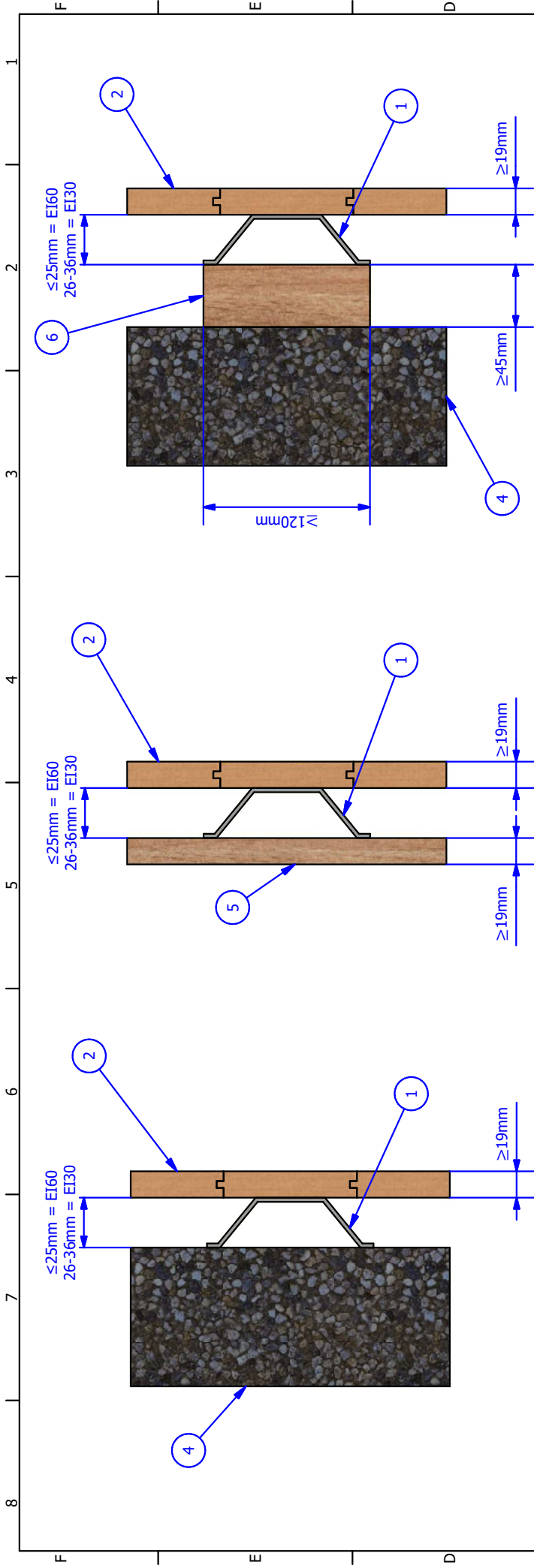
- Flexible and low weight - designed to be fitted easily and quickly
- No maintenance is required after installation

Approved Applications

Inner leaf Material type With suitable fire rating (EI)	Outer leaf Material type With suitable fire rating (EI)	Orientation	Cavity width (mm)	Product Dimensions (thickness x width x length, mm)	Fire rating
Masonry	Masonry	Horizontal	Up to 25mm	3 x 142 x 1000mm	EI120
Masonry	Masonry	Horizontal	26-36mm	3 x 142 x 1000mm	EI60
Timber	Timber	Horizontal	Up to 25mm	3 x 142 x 1000mm	EI60
Timber	Timber	Horizontal	26-36mm	3 x 142 x 1000mm	EI30
Masonry	Masonry	Horizontal	36-40mm	3+3 x 142 x 1000mm	EI120

Test evidence: Classified to EN13501-2 with classification report no 2023-Efectis-R000396





ITEM	DESCRIPTION
1	Tenmat BrandShield EI 142mm
2	T&G Timber (≥290kg/m³)
3	Non-combustible Board (≥19mm)
4	Concrete (≥670kg/m³)
5	Timber Board (≥450kg/m³)
6	Timber Batten (≥290kg/m³)
7	Tenmat FF107 3mm

Tenmat BrandShield EI 142mm is mounted by staples, nails or screws into the substrate. Use corrosion resistant fasteners.

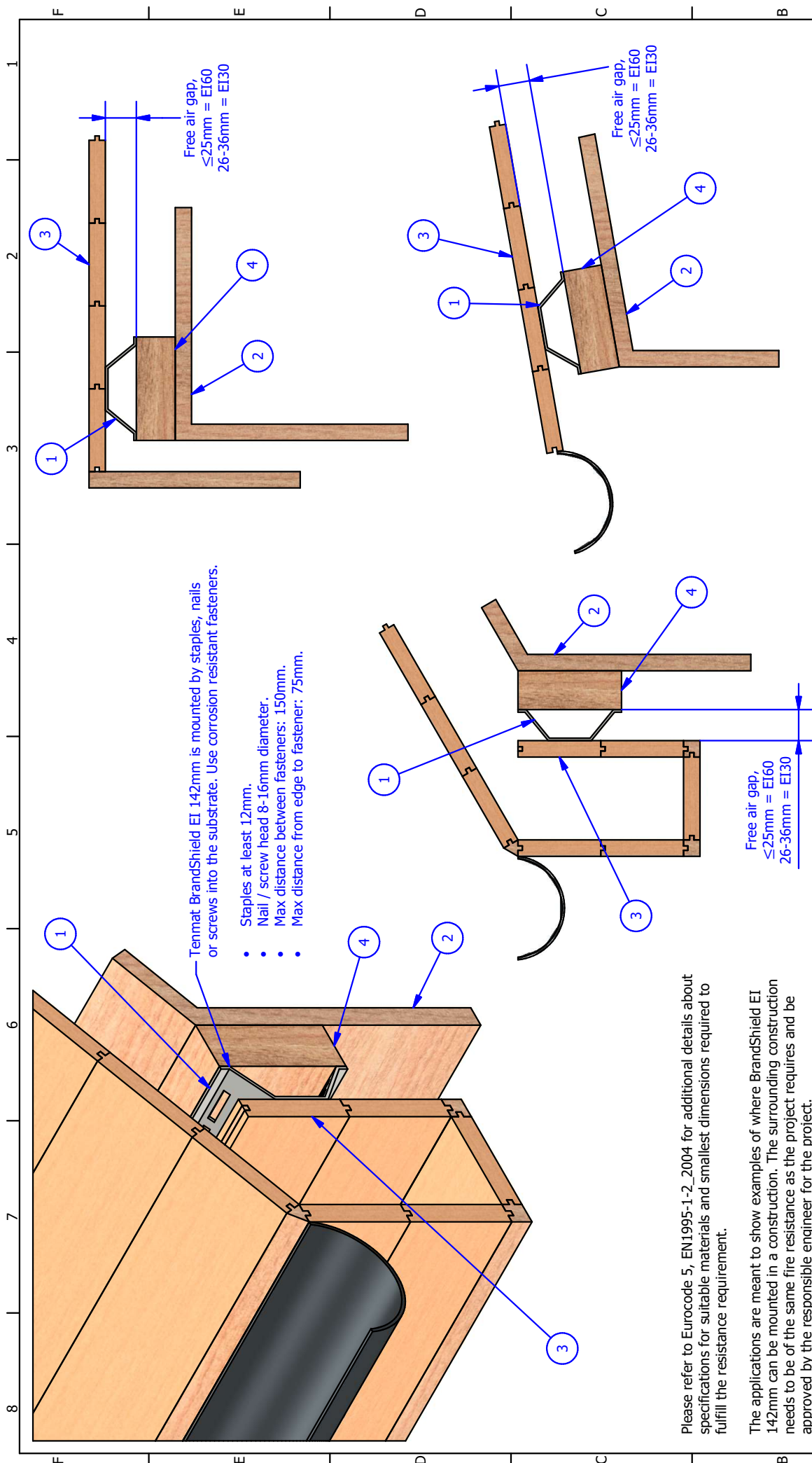
- Staples at least 12mm.
- Nail / screw head 8-16mm diameter.
- Max distance between fasteners: 150mm.
- Max distance from edge to fastener: 75mm.

Please refer to Eurocode 5, EN1995-1-2_2004 for additional details about specifications for suitable materials and smallest dimensions required to fulfill the resistance requirement.

The applications are meant to show examples of where BrandShield EI 142mm can be mounted in a construction. The surrounding construction needs to be of the same fire resistance as the project requires and be approved by the responsible engineer for the project.

TITLE		FIRE SEALED VENTILATED FACADE - EI30, EI60, EI120		MATERIAL		BrandShield EI 142mm	
DRAWN BY		Christopher Clarke		DWG NO.		FPD0014-11	
SCALE		NOT TO SCALE		UNITS		MM	
PROJECT		PROJECTION		REV		A	
DATE		26/06/2023		DATE		26/06/2023	





Tenmat BrandShield EI 142mm is mounted by staples, nails or screws into the substrate. Use corrosion resistant fasteners.

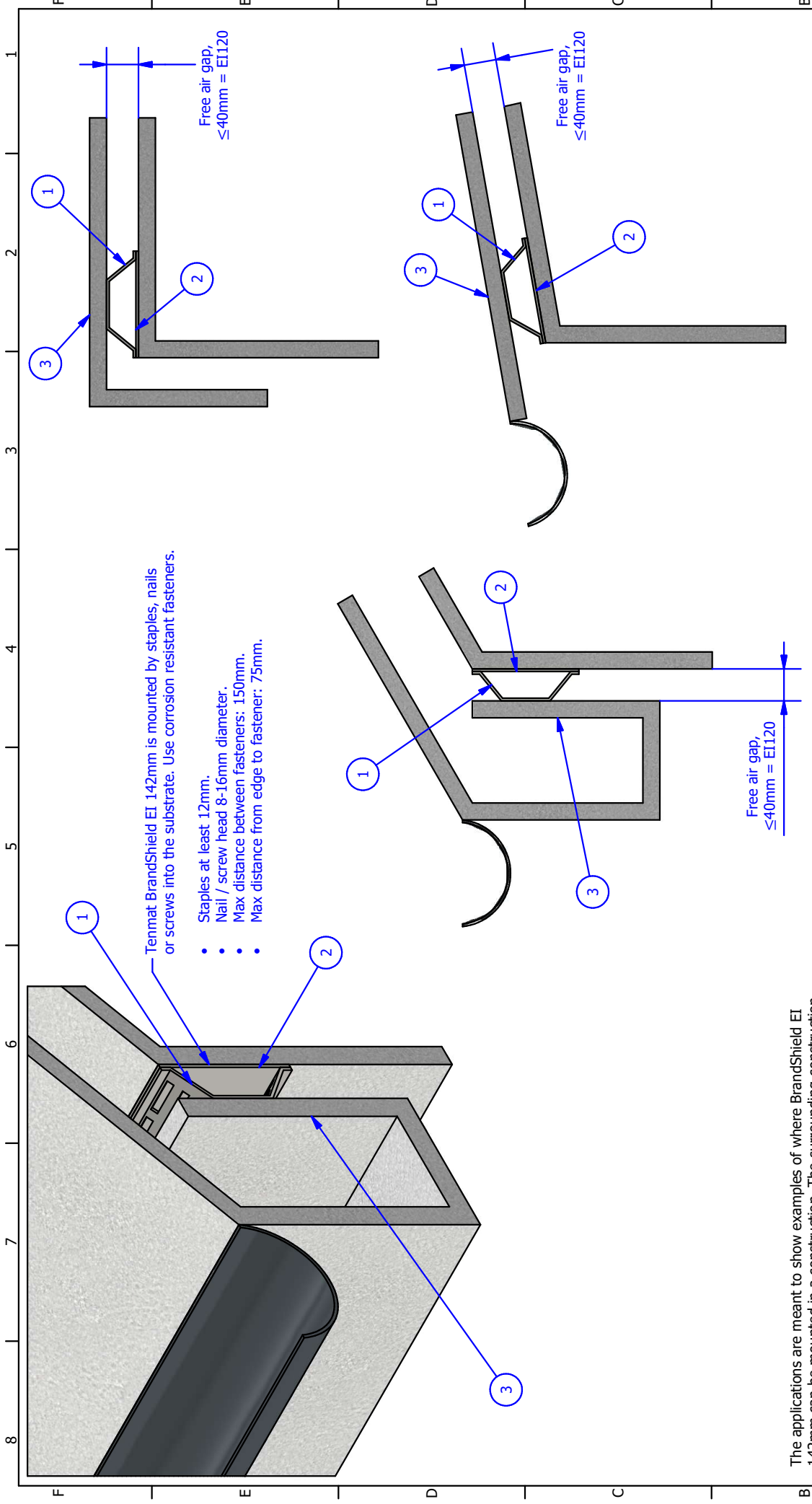
- Staples at least 12mm.
- Nail / screw head 8-16mm diameter.
- Max distance between fasteners: 150mm.
- Max distance from edge to fastener: 75mm.

Please refer to Eurocode 5, EN1995-1-2_2004 for additional details about specifications for suitable materials and smallest dimensions required to fulfill the resistance requirement.

The applications are meant to show examples of where BrandShield EI 142mm can be mounted in a construction. The surrounding construction needs to be of the same fire resistance as the project requires and be approved by the responsible engineer for the project.

PARTS LIST	
ITEM	DESCRIPTION
1	Tenmat BrandShield EI 142mm
2	Timber Board (≥450kg/m³)
3	T&G Timber (≥19mm) (≥290kg/m³)
4	Timber Batten (≥120x45mm) (≥290kg/m³)

TITLE		MATERIAL	
FIRE SEALED VENTILATED EAVE - EI30, EI60		BrandShield EI 142mm	
DRAWN BY		DWG NO.	REV
Christopher Clarke		FPD0014-14	A
SCALE		PROJECTION	DATE
NOT TO SCALE		MM	27/06/2023



The applications are meant to show examples of where BrandShield EI 142mm can be mounted in a construction. The surrounding construction needs to be of the same fire resistance as the project requires and be approved by the responsible engineer for the project.

PARTS LIST	
ITEM	DESCRIPTION
1	Tenmat BrandShield EI
2	Tenmat FF107 3mm
3	Non-Combustible Board (≥19mm)

TITLE		MATERIAL	
FIRE SEALED VENTILATED EAVE - EI120		BrandShield EI 142mm	
DRAWN BY		DWG NO.	REV
Christopher Clarke		FPD0014-15	A
SCALE		PROJECTION	DATE
NOT TO SCALE		⊕	27/06/2023
UNITS		MM	



Technical Information

Property	Value
Colour	Silver
Nominal thickness	3mm
Length	1000mm
Width	142 mm
Weight	0.24 Kg
Free expansion	30:1
Finish	Aluminium foil
Cuttability	Cut to length with knife, saw, or scissors
Storage conditions	Dry at room temperature
Transport storage temperature	-20C to +70C
Durability	Type X intended for use where the product can be exposed to weathering (UV, rain, frost)
Fungal resistance	Protected by aluminium
Smoke / Halogen Content	Low smoke / Free from halogens
Working life	60 years, based on typical Northern European climate

Sizes & Packaging

3 x 140 x 1000mm, 1000m per pallet

General Considerations

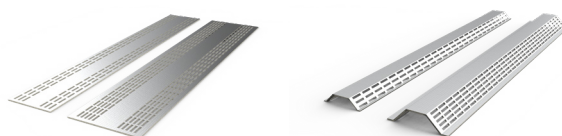
BrandShield EI is 142mm wide, 3mm thick and 1000mm long. The product is intended for cavities of maximum 40mm width. Refer to section "Approved Applications" in this data sheet for more information.

Fixing Details

The product is stapled, screwed or nailed in two rows with maximum 150mm between fixings. Use galvanised or stainless staples with minimum length of 12mm or galvanised or stainless nails or screws with a head of 8-16mm diameter.

Joints

When fitting to cavities longer than 1000mm the product needs to be jointed. Jointing is done with 25mm overlap between each individual length of BrandShield EI.



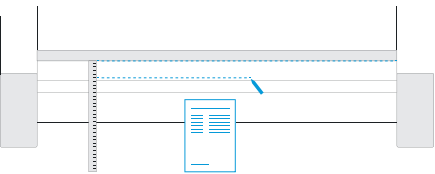
Eaves:
Positioning

The front of the product, which is covered with an aluminium foil, shall be fitted against the roof. The product labels indicate which face is the front.

BrandShield EI shall be fitted horizontally and parallel with the angle of the roof, continuously between the roof trusses. The timber batten on which the product is fitted to must be at least 120mm wide and 45mm thick with a density of at least 290 kg/m³. The correct positioning must be confirmed with the responsible design engineer for the project.

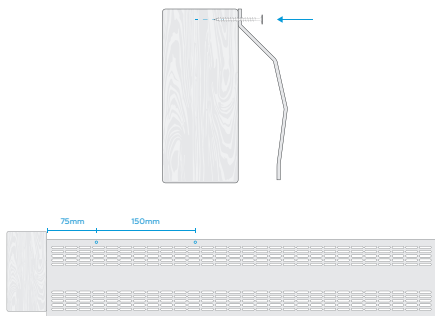
Eaves:
Installation Instructions

The product is installed by first fixing one of the long sides, then the cavity barrier is bent into a C-shape to the correct height (to suit the cavity) and finally the other long side is fixed into position.



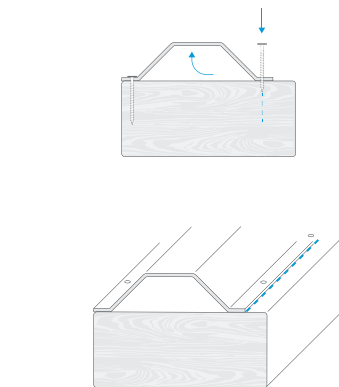
Step 1

Make a mark where one of the sides of BrandShield EI shall be fitted. Make a mark where the corresponding side of the product shall be fitted. Refer to the table below for correct distance between the sides of the product to fit the cavity size of the product.



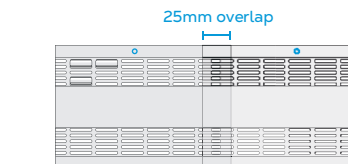
Step 2

Ensure that the end of the product is butted tightly to the roof truss and mount the first fixing 75mm from the end. Then continue to install the remaining fixings with a maximum distance of 150mm.



Step 3

Fold the cavity barrier by pushing the other side of the product until it reaches the marking made in Step 1, so that a C-shape is formed where the top of the product reaches at least the same height as the cavity width. Then install the corresponding fixings.



Step 4

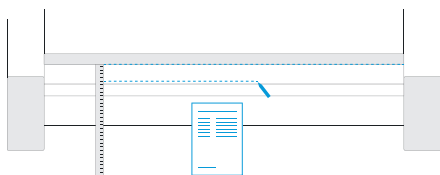
Any jointing is done with 25mm overlap.

Facade: Positioning, Obstacles and Insulation

The front of the product, which is covered with an aluminium foil, shall be fitted outwards to the cavity. The product labels indicate which face is the front.

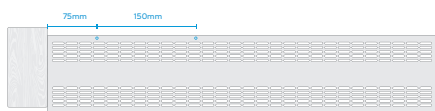
BrandShield EI shall be fitted horizontally and continuously along the compartment floor. The correct positioning must be confirmed with the responsible design engineer for the project. The product is not tested for fitting directly on top of insulation and must be fitted to a timber batten or to masonry.

Facade: Installation Instructions



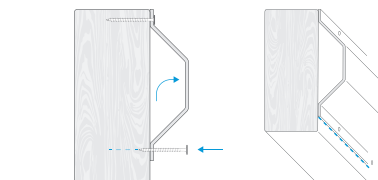
Step 1

Make a mark where one of the sides of BrandShield EI shall be fitted. Make a mark where the corresponding side of the product shall be fitted. Refer to the table below for correct distance between the sides of the product to fit the cavity size of the product.



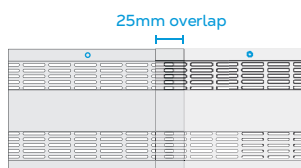
Step 2

Ensure that the end of the product is butted tightly to surrounding construction details and mount the first fixing 75mm from the end. Then continue to install the remaining fixings with a maximum distance of 150mm.



Step 3

Fold the cavity barrier by pushing the other side of the product until it reaches the marking made in Step 1, so that a C-shape is formed where the top of the product reaches at least the same height as the cavity width. Then install the corresponding fixings.



Step 4

Any jointing is done with 25mm overlap.

Table of Cavity Widths vs Installed Product Width

Cavity Width	Distance between sides of product
20mm	120mm
25mm	120mm
30mm	120mm
35mm	110mm
40mm	110mm

Tools and Equipment

PPE and tools required for installation

PPE that is required by the employer but should include hand and eye protection to protect against staples, screws and nails. Screwdriver, staple gun or nail gun and fixings for installation. Sharp scissors or knife to cut BrandShield EI to correct length. Tape measure. Ladder, scaffolding, or equivalent.

Intended Use

In ventilated façades and eaves, to reinstate a fire resistance of EI 30-EI120 in the event of a fire.

Maintenance

No active maintenance is required after installation. When renovating in the vicinity of the product, an inspection should be done to ensure the product has not been damaged and is still installed as intended in the original construction and in accordance to the original fitting instruction.

Transport and Storage

- Store in a cool dry place
 - Do not exceed maximum loads on racking
-

Environment and Landfill

As the product can be jointed, the full length of the product can be used and minimal waste is generated at installation. Offcuts are sorted as non-combustible waste as it contains mineral wool, intumescent material and a small amount of organic binders.

The aluminium foil can be separated from the cavity barrier and sorted as metal waste. By separating the foil from the rest of the material the amount of waste sent to landfill is minimised and thus reduces the effect on the environment and health.

Working Life

60 years.

Recommendation

We recommend that you always contact the responsible fire engineer or building designer for the project before ordering and/or installing the product. This is to ensure compliance with local building regulations.

Notes

BrandShield EI

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