ALFA FIREGUARD 3

Fire protection mat for ventilation ducts

TDS Technical Data Sheet

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.INTUSEAL®

passive fire protection manufacturer

www.intuseal.com

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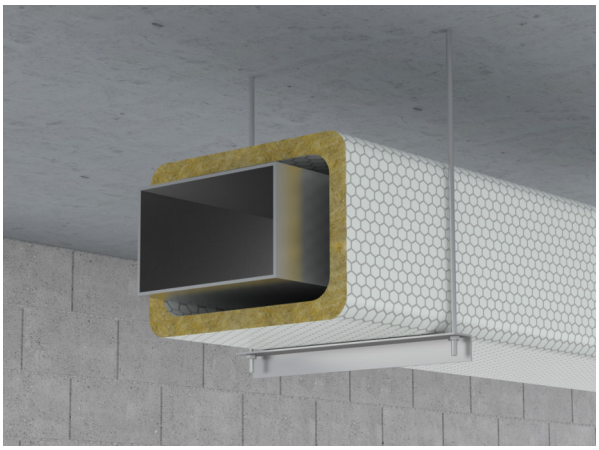
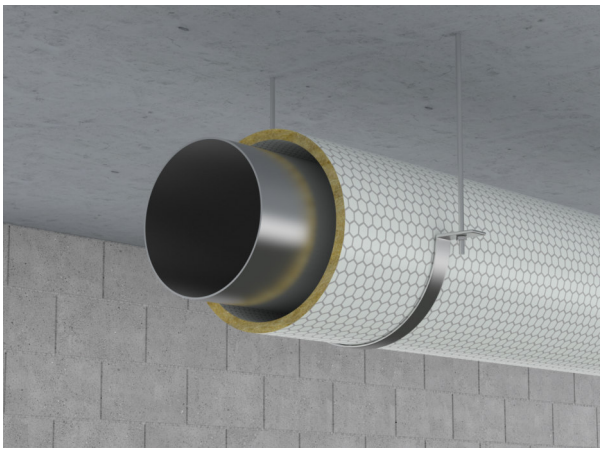
PRODUCT DESCRIPTION

The **ALFA FIREGUARD 3** is a flexible mat designed for fire protection of metal ventilation ducts (in accordance with EN1366-1) exposed to external fire. The product is a rock wool cushion quilted on a metal mesh. The exposed side is covered with a wire aluminium foil, while the internal side has a glass wool fabric treated with an ablative product. With its reduced 30 mm thickness, the cushion is easy to apply even on curved profiles and does not overload the support tie rods, which are certified without protection.





APPLICATION

Rectangular ventilation ducts:	Size maximum 1250 x 1000 mm
Round ventilation ducts:	Size maximum Ø1000 mm

AVAILABILITY

Product name	Specification	Article number
ALFA FIREGUARD 3	6000 x 1000 x 30 mm	INFGMATT
ALFA BAND 3	25 m	INFGBD25
ALFA FIEGUARD WIRE	1 mm / 50 m	INFGWR1MM
ALFA FIREGUARD MOUNTING KEY		INFGKEY

TECHNICAL DATA

Weight	~ 5 kg/m^2
Size	1 roll of mat: 6000 x 1000 x 30 mm 1 roll of mat = 6 m^2 1 pallet = 10 rolls
Density	ρ = 100 kg/m^3
Thermal conductivity	Λ = 0,035 W/(m · K)
Absorption	≤ 1 kg/m^2
Cuttability	Tak
Colour	Inside – white Outside - silver
ALFA BAND 3 consumption	~10-12 linear meter for 1 roll of mat ALFA FIREGUARD 3 (6 m^2)

COMPLIANCE

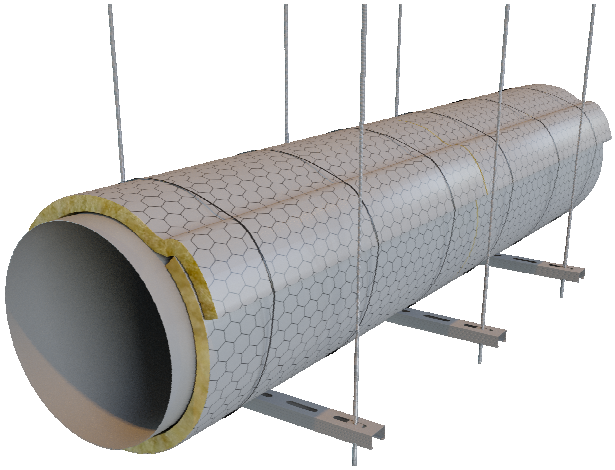
- *Test standard:*
  EN 1366-1 / EAD 350142-00-1106
- *European Technical Assessment:*
  ETA 25/0029 of 16/01/2025
- *Declaration of Performance:*
  DoP 1/2025
- *Certificate of Constancy of Performance*
  1292/CPR/116247

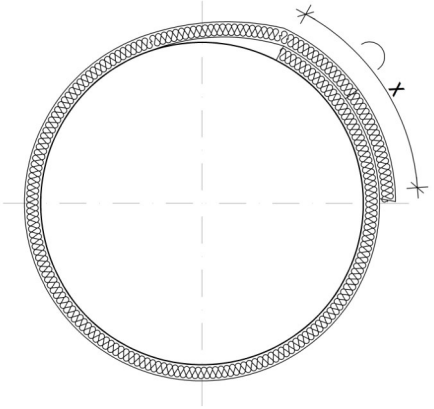
TRANSPORT AND STORAGE

Transport and store in a dry place.

Protect against moisture.

INSTALLATION METHOD

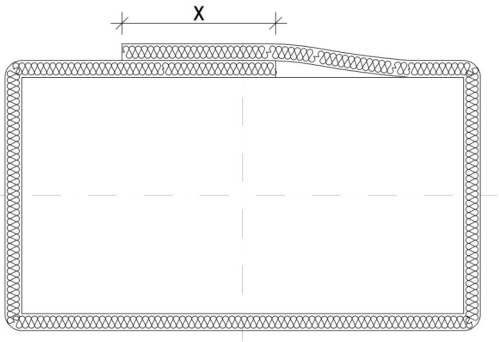




1a. ROUND CROSS-SECTION. Measure the canal circumference and increase them by:

- 190 mm (to compensate the thickness of the mat)
- 200 mm = x – overlap

Summary: canal circumference + 390 mm



1b. RECTANGULAR CROSS-SECTION. Measure the canal circumference and increase them by:

- 240 mm (to compensate the thickness of the mat)
- 200 mm = x – overlap

Summary: canal circumference + 440 mm

2. Cut the mat **ALFA FIREGUARD 3** to the designated length.

3. Wrap the cut section of the mat around the duct with overlap ≥ 200 mm.
Secure the mat with steel wire 1 mm thick for every 300 mm (three loops for linear meter).
Repeat the steps from point 1 to 3 to cover the ventilation duct with a second parallel layer.

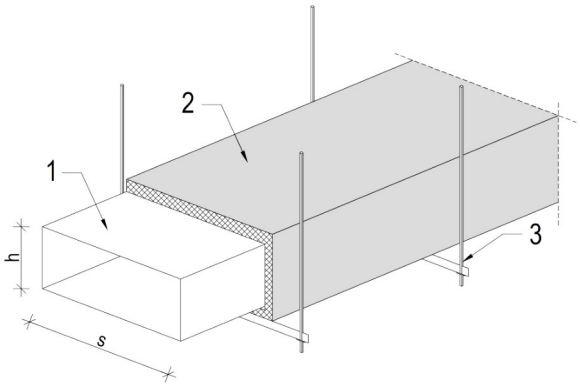
4. Use **ALFA BAND 3** self-adhesive tape to the transverse joint between the two sections of the mat.
Protect **ALFA BAND 3** by placing a 1 mm thick wire around tape placed on the ventilation duct.

FIRE RESISTANCE CLASSIFICATION

Ventilation duct type	Duct position	Fire resistance class
RECTANGULAR	Vertical	EI 120 (ve O → I) S
	Horizontal	EI 120 (ho O → I) S
ROUND	Vertical	EI 180 (ve O → I) S
	Horizontal	EI 120 (ho O → I) S

➔ SOLUTION DETAILS

Fig.1 Protection of the horizontal ventilation duct EI 120 (ve o→i) S

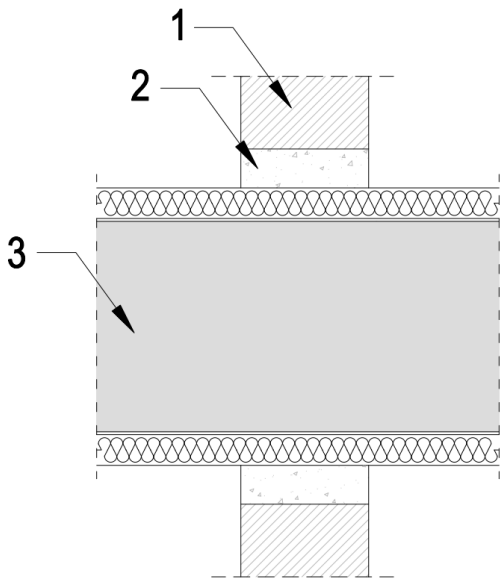


1 – steel ventilation duct with size:
s x h, EI120(ve o→i) S;

2 – **ALFA FIREGUARD 3**, fire protection flexible mat with thickness 30 mm;

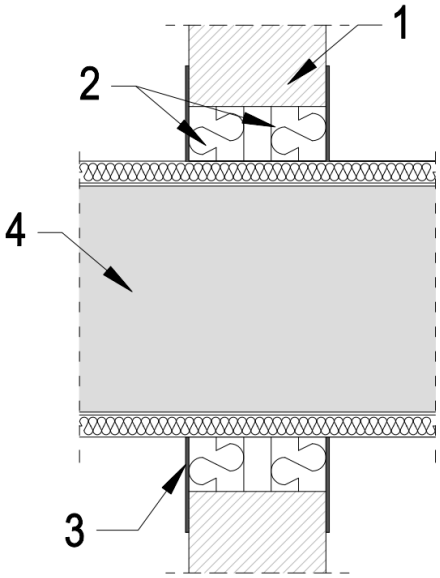
3 – slings should be mounted at a distance of max. 1400 mm (suspension details according to ETA).

Fig.2 Penetration seal of the ventilation duct through rigid walls - filling with mortar



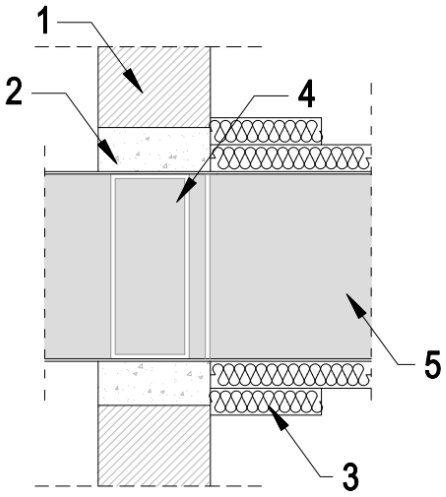
1 – rigid wall, EI 120;
2 - filling with cement mortar;
3 – ventilation duct wrapped with one layer of **ALFA FIREGUARD 3** fire protection mat.

Fig.3 Penetration seal of the ventilation duct through rigid walls - filling with mineral wool



1 – rigid wall, EI 120;
2 - filling made of 2 x mineral wool board (density ≥ 140 kg/m^3) painted one-sided with ablative paint;
3 – fire protection ablative paint for example INTU FR COAT A, dry thickness layer ≥ 1.0, overlap on the partition ≥ 20 mm;
4 – ventilation duct wrapped with one layer of **ALFA FIREGUARD 3** fire protection mat.

Fig.4 Penetration seal of the ventilation duct (with fire damper) through rigid walls - filling with mortar



1 – rigid wall, EI 120;

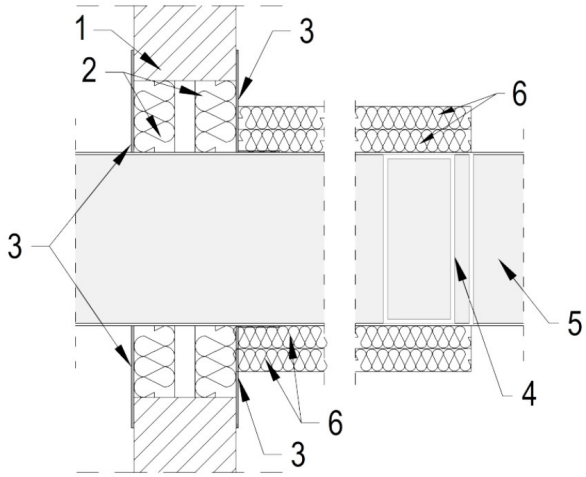
2 – filling with cement mortar;

3 – additional layer of **ALFA FIREGUARD 3** mat ≥ 100 mm long;

4 – fire damper;

5 – ventilation duct wrapped with one layer of **ALFA FIREGUARD 3** fire protection mat.

Fig.5 Protection of the ventilation duct (with fire damper) penetration through rigid walls



1 – rigid wall;

2 – filling partition with 2 x mineral wool boards with minimum density 150 kg/m³ and thickness 60 mm, painted with fire-resistant ablative paint;

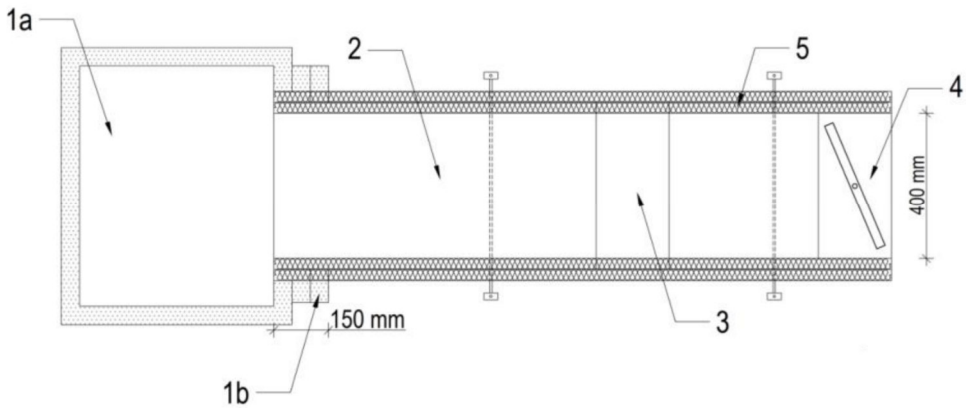
3 – overlap on the partition by ablative fire resistance paint INTU FR COAT A;

4 – fire damper;

5 – steel ventilation duct;

6 – 2 layers (non-standard solution) of fire protection flexible mat **ALFA FIREGUARD 3.**

Fig.6 Protection of the ventilation duct (with fire damper) penetration through rigid walls



1a – fan in the housing made of silicate-cement board;

1b – reinforcement - 2 x board;

2 – steel ventilation duct;

3 – pipe T-piece which is going into the slab ceiling;

4 – fire damper, EIS120;

5 – 2 layers (non-standard solution) of fire protection flexible mat **ALFA FIREGUARD 3.**