DG-CR 0.7

Intumescent cable bandage

Flexible building material made of glass filament fabric with PU coating on the outside and an intumescent DG coating on the inside.
Prevention of fire propagation: max. 120 minutes as per DIN EN 60332-3-22: Cat. A: 2018

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Installation instructions Rev.: 23.08

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1. Preliminary remarks / Overview

1.1 Target group

The installation instructions are intended solely for personnel trained in fire protection.

1.2 Use of the instructions

Before starting work, read through these installation instructions completely once. 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.

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.

1.3 Safety instructions

Consult the respective safety information for the individual penetration seal components.

Personal protective equipment:

	Wear protective clothing and non-slip shoes.

	Use safety goggles or safety glasses.

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1.4 Field of application

The usability of the fire protection fabric DG-CR 0.7 has been assessed in accordance with EAD 350005-00-1104 in terms of the „Reaction to fire“, „Release of dangerous substances“ and „Durability and serviceability“ product characteristics.

Reaction to fire

The intumescent material DG-CR 0.7 meets class B-s1,d0 for reaction to fire in accordance with EN 13501-1.

Release of dangerous substances

none

Durability and serviceability

The intumescent fire protection fabric DG-CR 0.7 meets the requirements of type X in accordance with EOTA TR 024.

DG-CR can be subjected to the conditions of interior rooms with and without exposure to moisture or atmospheric conditions, without substantial changes to the fire protection characteristics to be expected.

Flame spread

IEC 60332-3-22

DIN EN 60332-3-22 / VDE 0482-332-3-22

Testing of flame spread: Cat. A: 2018 for 120 min.

DNV GL Certificate No. TAE00003BR

Functional integrity

IEC 60331-21

DIN IEC 60331-21 / VDE 0482-331-21:2017-06

Testing of the functional integrity: Successfully completed various tests for up to 60 minutes on different cable types and voltage ranges. Further information on request.

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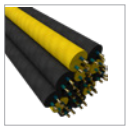
2. Allowed services

2.1 Cables / cable bundles / cable support systems

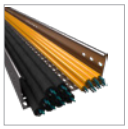
Electrical cables and conductors of all types

Without limiting the size of the total conductor cross-section of the single cables.
Vertical, horizontal or diagonally laid or arranged.



Cable bundles

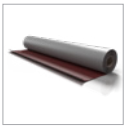
Without limiting the size of the total conductor cross-section of the single cables.
Vertical, horizontal or diagonally laid or arranged.



Cable support systems

Non-combustible cable trays or cable ladders with construction material class DIN 4102-A or classes A1 and A2-s1, d0 in accordance with DIN EN 13501-1. Installed or arranged vertically, horizontally or at an angle.

3. Included products



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Fire protection fabric
Roll, 10 × 1100 mm – Art. no. 01260110
Roll, 20 × 1100 mm – Art. no. 01260231
Metal strap
100 × 15 mm – Art. no. 01234000
Sealing clips
1000 pcs. – Art. no. 01234100

Recommended tools

- tape measure
- steel angle
- cutting knife / scissors
- possibly film, folding ladder
- wire pliers, metal tensioning belt (Ø 1 mm)

3.1 Declarations of Performance

The Declarations of Performance for featured svt products are available for download on our website:
https://svt-global.com/downloads

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4. Design variants

- Remove the protective film from the coated side (red).
- Cut pieces of the required size from the DG-CR 0.7 fire protection fabric and wrap them around the cable system so that it is completely enveloped. In doing so, make sure that the red side (the coated side which will expand in the event of a fire) faces inside towards the cables.
- Apply the bandage in such a way that the individual pieces cut from the DG-CR 0.7 fire protection fabric overlap by ≥ 50 mm, each at the longitudinal and transverse joints. In order to allow for subsequent retrofitting, remember to provide for larger lengthwise overlaps.
- Fix the fire protection fabric in place using metal fasteners (metal strips, wire or staples are suitable fasteners) at a distance of no more than 500 mm from each other. In case of one-sided covering, metal bars and screws can also be used to fix the fire protection fabric to solid mineral walls and floors.
- Arrange the fire protection fabric tightly around the cables or cable bundles and around the cable trays or cable ladders (if applicable, also include their respective connection areas, e.g. suspensions or mounts) so that no open joints, gaps nor any other orifices are left.
- If cantilever arms, brackets or suspensions are used for support, be sure to prepare the cable trays in these supported areas by applying to them cut strips of the fire protection fabric (each strip with a width of no less than 100 mm) and then fixing them in place with e.g. wire or metal brackets.
- When opening up the DG-CR 0.7 fire protection fabric at a later point in time, either for retrofit purposes or for adjusting the configuration of penetrants, take care to not damage the fire protection fabric. After completing the retro-fitting or adjustment process, be sure to restore the functional integrity of the fire protection fabric in accordance with the prescribed installation requirements.

5. Installation steps

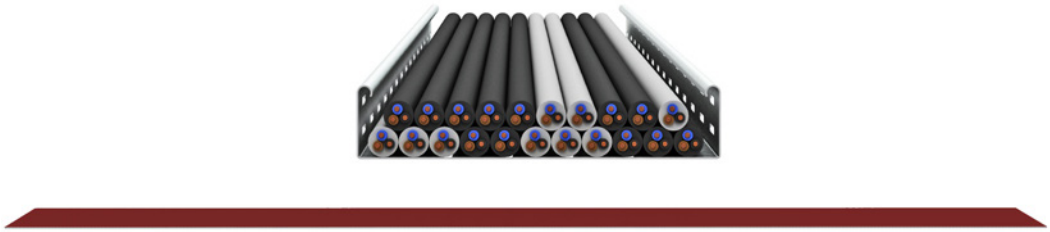
5.1 Wrapping cable trays

If cantilever arms, brackets or suspensions are used for support, be sure to prepare the cable trays in these supported areas by applying to them cut strips of the fire protection fabric (each strip with a width of at least 100 mm) and then fixing them in place with e.g. wire or metal brackets.

Note:

Length ≥ 2 × tray width, 2 × side height and 50 mm overlap

1. Remove the protective film from the coated side. Cut out strips for backing (each strip with a width of at least 100 mm).



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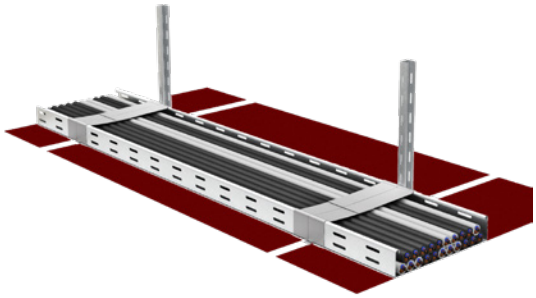
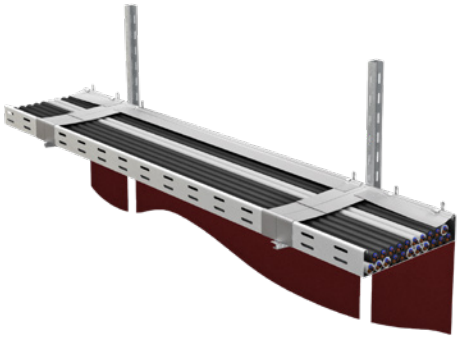
2. Slot the strips lengthwise as required

3. Fit the strips tightly in place (with the coated side facing inwards).

4. Remove the protective film from the coated side. Cut strips as required. Apply the strips with 50 mm overlap to the backing (with the coated side facing inwards).



5. For easier installation, fix the fire protection fabric with clamps to the cable support structures.



6. Fold the free end of the fire protection fabric over the cable tray and fix it in place circumferentially with steel bands/wires at a distance of ≤ 500 mm from each other (at least twice for each fabric section).
The lengthwise overlap must be ≥ 50 mm.

7. Fix the fabric in place with steel band / wire.

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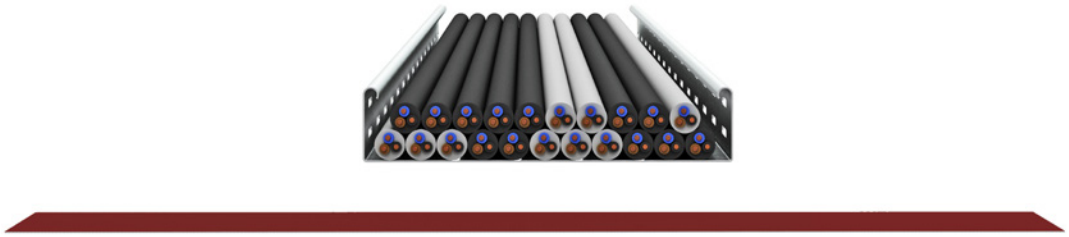
5.2 Wrapping cables in trays

The fire protection fabric must be completely wrapped around the cable lines. The longitudinal and transversal joints of the fire protection fabric must overlap by at least 50 mm. The bandage must be fixed in place with metal tightening straps, wire or staples spaced at a distance of ≤ 500 mm from each other.

Note:

Length ≥ 2 × tray width, 2 × side height and 50 mm overlap

1. Remove the protective film from the coated side. Cut strips as required and wrap them completely around the cables (with the coated side facing inwards).



2. Longitudinal and transversal joints must overlap by at least 50 mm.

3. Fix the fabric in place with steel band / wire.

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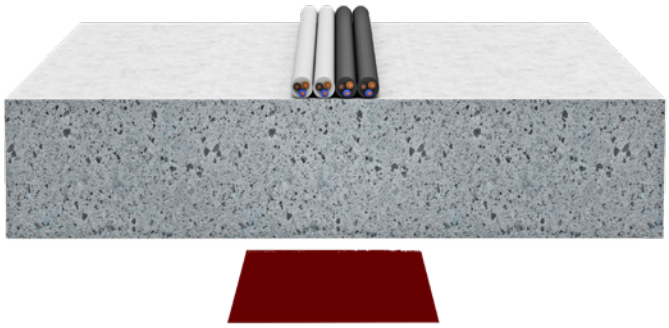
5.3 Cable systems mounted directly on solid structural elements

Cable systems attached to solid mineral substrates can be wrapped with cut pieces from the fire protection fabric DG-CR 0.7 and by means of rails screwed onto the solid structural element.

1. Remove the protective film from the coated side. Cut strips to the required size and place them – with the coated side facing inwards – onto the cables in close contact with the solid structural component.



2. Use metal rails to attach the fire protection fabric to the solid structural element (with the coated side facing inwards).

3. Arrange the next layer of strips with overlaps of ≥ 50 mm.

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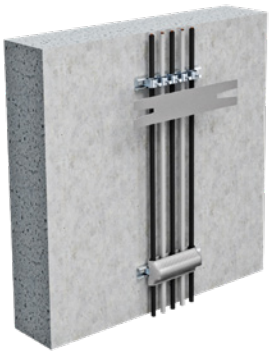
5.4 Cable systems fixed with clips or mounted on brackets

Vertical cable systems are usually mounted to brackets or profile rails by means of clips. It may be arranged with the construction owners/builders in charge to temporarily remove some of the clips in order to install a backing strip made of fire protection fabric underneath the clip around the cabling. Once the backing strip has been fixed in place, the clip must be screwed back tightly as prescribed. The cable must be bandaged with a ≥ 50 mm overlap in the transversal and longitudinal joint areas.

1. Remove the protective film from the coated side. Cut strips and slot them up to the required length.



2. Adjust the strips and position them with the coated side facing inwards.

3. Fix the strips in place using steel band / wire.

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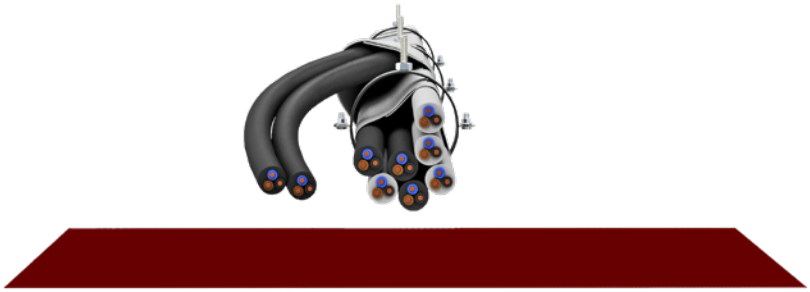
5.5 Cable inlets and outlets

Where cables are led into or out of the fire protection wrapping, they must be encased in the cable bandage over a minimum length of 300 mm, provided that no further fire protection requirements must be met for these cables.

1. Remove the protective film from the coated side. Cut strips and insert them with an overlap of ≥ 50 mm into the tray wrap.



2. Wrap outlet cables over a length of ≥ 300 mm (with the coated side facing inwards).

3. Secure the bandage at the cable outlet area with tightening straps, wire or staples.