

# INTU FR UNICOAT P

*Fire rated coating*

TDS TECHNICAL DATA SHEET



CE

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# INTU FR UNICOAT P

Fire rated coating

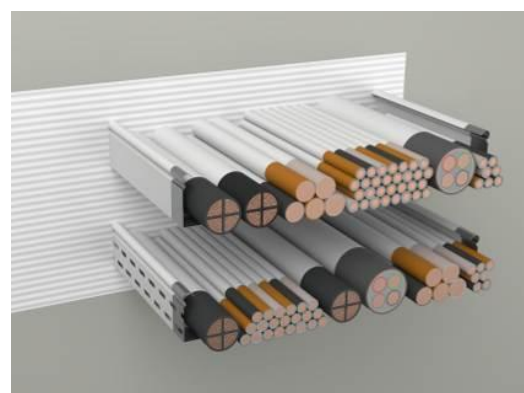
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## → PRODUCT DESCRIPTION

The intended use of ablative paint **INTU FR UNICOAT P** is to reinstate the fire resistance performance of flexible wall, rigid wall or rigid floor constructions, where they are penetrated by services: large penetration of cables or single and multiple penetration of non-combustible pipes. The **INTU FR UNICOAT P** paint should be applied at the recommended length and with the required dry layer thickness.

## → APPLICATION

**INTU FR UNICOAT P** is an ablative paint used to form penetration seals where metal and combustible pipes and cables, single or in bundles, cable ladders and cable trays, penetrate walls and floors.



### Flexible walls:

The wall must have a minimum thickness 100 mm, must comprise timber or steel studs lined on both faces with minimum two layers (with overall board layer thickness on one side equal to or greater than 25 mm) of gypsum plasterboards.

### Rigid walls:

The wall must have a minimum thickness 100 mm, must comprise concrete or masonry separating elements, with a minimum density 450 kg/m³.

### Rigid floor:

The floor must have a minimum thickness 150 mm, must comprise aerated or reinforced concrete, concrete, with a minimum density 550 kg/m³.

## → AVAILABILITY

| Product           | Contents | Packaging | Pallet | Article no. |
|-------------------|----------|-----------|--------|-------------|
| INTU FR UNICOAT P | 6 kg     | pail      | 70/84  | INUP6KG     |
|                   | 12,5 kg  | pail      | 40     | INUP125KG   |

## → COMPLIANCE

- Test standard:  
**EN 1366-3 / EAD 350454-00-1104**
- European Technical Assessment:  
**ETA 24/1047 of 19/12/2024**
- Declaration of Performance:  
**DoP 6/2024**
- Certificate of Constancy of Performance  
**1488-CPR-1149/W**



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## → TRANSPORT AND STORAGE

Store in dry and cool conditions at temperatures between +5°C to +35°C. Shelf life 12 months from the production date shown on the packaging.

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#### → INSTALLATION METHOD

##### PREPARATION

Clean the surfaces of the opening and the installations of grease and other contaminants before the protection is performed. Fill the space in penetration with:

- mineral wool board which next should paint with **INTU FR UNICOAT P** coat or ready pre-painted **INTU FR UNIBOARD**
- cement mortar or **INTU FR MASTIC** sealant.

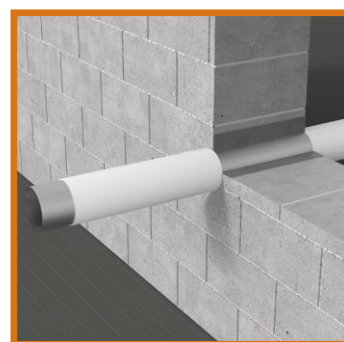
##### APPLICATION

Mix the paint thoroughly before use (to homogeneous consistency). The paint does not require dilution, but if necessary, water can be added.

Cover the pipe and cables with **INTU FR UNICOAT P** with the appropriate thickness to obtain demanded dry film thickness and length.

##### FINISH

Penetration seal is ready. Complete declaration and paste it next to the penetration.



Approximate consumption of **INTU FR UNICOAT P** ~ 0,9 - 1,0 kg/m<sup>2</sup> – for a dry film thickness of 0,5 mm.

Drying time for coating with 1,0 mm thickness: ~80 min (dry to the touch), ~330 min (complete dry).

|                                    |                                                                                                                                                                  |
|------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Colour                             | Mineral wool with white coating                                                                                                                                  |
| Transportation storage temperature | -5 °C to +35 °C (store dry in the original packaging)                                                                                                            |
| Usage category                     | Type Z <sub>2</sub> : intended for use in internal conditions with humidity lower than 85% RH, excluding temperatures below 0°C, without exposure to rain or UV. |
| Methods used for the assessment    | EAD 350454-00-1104 "Fire Stopping and Fire Sealing Products. Penetration Seals"                                                                                  |
| Approvals                          | ETA-24/1047 and Classification Report No. 01988.3/22/Z00NZP                                                                                                      |
| Function preservation              | 25 years                                                                                                                                                         |
| Joint finish                       | Acrylic sealant INTU FR MASTIC or cement mortar                                                                                                                  |

#### → FIRE RESISTANCE CLASSIFICATION

##### NON-COMBUSTIBLE PIPES with partition filling by **INTU FR UNIBOARD**

| Pipe material | Filling the partition   | Pipe diameter Ø [mm] | FLEXIBLE / RIGID WALLS   |                                                 |                             | FLOORS                   |                                                |                             |
|---------------|-------------------------|----------------------|--------------------------|-------------------------------------------------|-----------------------------|--------------------------|------------------------------------------------|-----------------------------|
|               |                         |                      | Pipe wall thickness [mm] | INTU FR UNICOAT P paint, thickness x width [mm] | Fire resistance C/U and C/C | Pipe wall thickness [mm] | INTU FR UNICOAT P paint thickness x width [mm] | Fire resistance C/U and C/C |
| Steel         | 2 x INTU FR UNIBOARD 1S | Ø ≤ 42,4             | ≥ 1,5                    | 1,0 x 500                                       | EI 60                       | ≥ 1,5                    | 1,0 x 500                                      | EI 90                       |

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### CABLES with partition filling by INTU FR UNIBOARD

| Pipe material               | Filling the partition   | Cable diameter<br>Ø [mm]                                                       | FLEXIBLE / RIGID WALLS                          |                 | FLOORS                                         |                 |
|-----------------------------|-------------------------|--------------------------------------------------------------------------------|-------------------------------------------------|-----------------|------------------------------------------------|-----------------|
|                             |                         |                                                                                | INTU FR UNICOAT P paint, thickness x width [mm] | Fire resistance | INTU FR UNICOAT P paint thickness x width [mm] | Fire resistance |
| Small cables                | 2 x INTU FR UNIBOARD 1S | $\varnothing \leq 21$                                                          | 1,0 x 160                                       | EI 120          | 1,0 x 160                                      | EI 120          |
| Medium cables               |                         | $21 < \varnothing \leq 50$                                                     |                                                 | EI 90           |                                                |                 |
| Large cables                |                         | $50 < \varnothing \leq 80$                                                     |                                                 | EI 90           |                                                |                 |
| Cable bundle                |                         | $\varnothing_{\text{CABLE}} \leq 21$<br>$\varnothing_{\text{BUNDLE}} \leq 100$ |                                                 | EI 120          |                                                |                 |
| Non-sheathed cables (wires) |                         | $\varnothing \leq 24$                                                          |                                                 | EI 120          |                                                |                 |
| Small cables                | 1 x INTU FR UNIBOARD 2S | $\varnothing \leq 21$                                                          | 1,0 x 200                                       | EI 60           | 1,0 x 200                                      | EI 60           |
| Medium cables               |                         | $21 < \varnothing \leq 50$                                                     |                                                 |                 |                                                |                 |
| Large cables                |                         | $50 < \varnothing \leq 80$                                                     |                                                 |                 |                                                |                 |
| Cable bundle                |                         | $\varnothing_{\text{CABLE}} \leq 21$<br>$\varnothing_{\text{BUNDLE}} \leq 100$ |                                                 |                 |                                                |                 |
| Non-sheathed cables (wires) |                         | $\varnothing \leq 24$                                                          |                                                 |                 |                                                |                 |

### NON-COMBUSTIBLE PIPES with partition filling by INTU FR MASTIC or cement mortar

| Pipe material | Filling the partition          | Pipe diameter<br>Ø [mm]             | FLEXIBLE / RIGID WALLS   |                                                 |                             | FLOORS                   |                                                |                             |
|---------------|--------------------------------|-------------------------------------|--------------------------|-------------------------------------------------|-----------------------------|--------------------------|------------------------------------------------|-----------------------------|
|               |                                |                                     | Pipe wall thickness [mm] | INTU FR UNICOAT P paint, thickness x width [mm] | Fire resistance C/U and C/C | Pipe wall thickness [mm] | INTU FR UNICOAT P paint thickness x width [mm] | Fire resistance C/U and C/C |
| Copper        | INTU FR MASTIC                 | $\varnothing \leq 54,0$             | $\geq 2,0$               | 1,0 x 500                                       | EI 120                      |                          |                                                |                             |
| Steel         | INTU FR MASTIC / cement mortar | $\varnothing \leq 42,0$             | $\geq 1,5$               | 1,0 x 500                                       | EI 120                      | $\geq 1,5$               | 1,0 x 500                                      | EI 120                      |
|               |                                | $42,0 < \varnothing \leq 54,0$      | $\geq 2,0$               | 1,0 x 500                                       | EI 120                      | $\geq 1,5$               | 1,0 x 500                                      | EI 60                       |
|               |                                | $54,0 < \varnothing \leq 66,7$      | $\geq 2,0$               | 1,0 x 500                                       | EI 60                       | $\geq 1,5$               | 1,0 x 500                                      | EI 60                       |
|               |                                | $66,7 \leq \varnothing \leq 76,1$   | $\geq 2,3$               | 1,0 x 500                                       | EI 60                       | $\geq 1,5$               | 1,0 x 500                                      | EI 60                       |
|               |                                | $76,1 \leq \varnothing \leq 88,9$   | $\geq 2,7$               | 1,0 x 500                                       | EI 60                       | $\geq 1,5$               | 1,0 x 500                                      | EI 60                       |
|               |                                | $88,9 \leq \varnothing \leq 108,0$  | $\geq 3,4$               | 1,0 x 500                                       | EI 60                       | $\geq 3,4$               | 1,0 x 500                                      | EI 45                       |
|               |                                | $108,0 \leq \varnothing \leq 114,3$ | $\geq 3,6$               | 1,0 x 500                                       | EI 60                       | $\geq 3,6$               | 1,0 x 500                                      | EI 45                       |
|               |                                | $114,3 \leq \varnothing \leq 139,7$ | $\geq 3,8$               | 1,0 x 500                                       | EI 60                       | $\geq 3,8$               | 1,0 x 500                                      | EI 45                       |
|               |                                | $139,7 \leq \varnothing \leq 159,0$ | $\geq 3,9$               | 1,0 x 500                                       | EI 60                       | $\geq 3,9$               | 1,0 x 500                                      | EI 45                       |
|               |                                | $159,0 \leq \varnothing \leq 168,3$ | $\geq 4,0$               | 1,0 x 500                                       | EI 60                       | $\geq 4,0$               | 1,0 x 500                                      | EI 45                       |

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NON-COMBUSTIBLE PIPES + additional mineral wool lamella

| Pipe material | Filling the partition | Pipe diameter Ø [mm]                | FLOORS                   |                                                 |                                                |                             |
|---------------|-----------------------|-------------------------------------|--------------------------|-------------------------------------------------|------------------------------------------------|-----------------------------|
|               |                       |                                     | Pipe wall thickness [mm] | Lamella mineral wool thickness x length Lw [mm] | INTU FR UNICOAT P paint thickness x width [mm] | Fire resistance C/U and C/C |
| Steel         | Cement mortar         | $108,0 \leq \varnothing \leq 114,3$ | $\geq 3,6$               | 20 x 200                                        | 1,0 x 500                                      | EI 90                       |
|               |                       |                                     |                          | 20 x 350                                        |                                                | EI 120                      |
|               |                       | $114,3 \leq \varnothing \leq 139,7$ | $\geq 3,8$               | 20 x 200                                        | 2,0 x 500                                      | EI 60                       |
|               |                       | $139,7 \leq \varnothing \leq 159,0$ | $\geq 3,9$               | 20 x 200                                        |                                                |                             |
|               |                       | $159,0 \leq \varnothing \leq 168,3$ | $\geq 4,0$               | 20 x 200                                        |                                                |                             |

### ➔ SOLUTION DETAILS

**Fig.1** Wall with filling with 2 x INTU FR UNIBOARD

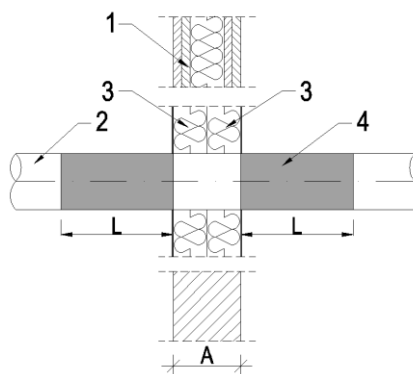
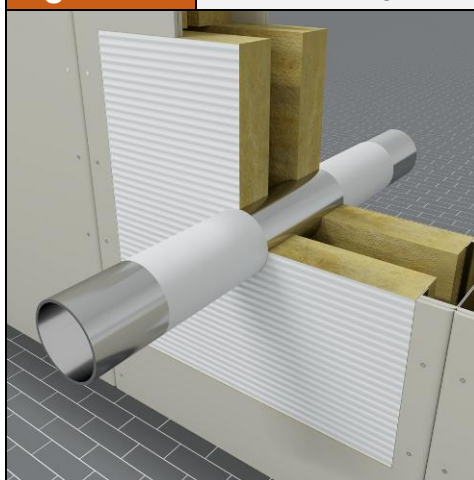


Fig. 1 Non-combustible pipe painted by INTU FR UNICOAT P, double mineral wool board

- 1 – flexible / rigid wall  $A \geq 100$  mm or rigid floor  $H \geq 150$  mm
- 2 – non-combustible pipe
- 3 – 2 x board INTU FR UNIBOARD 1S
- 4 – painting by INTU FR UNICOAT P

**Fig.2** Floor with filling with 2 x INTU FR UNIBOARD

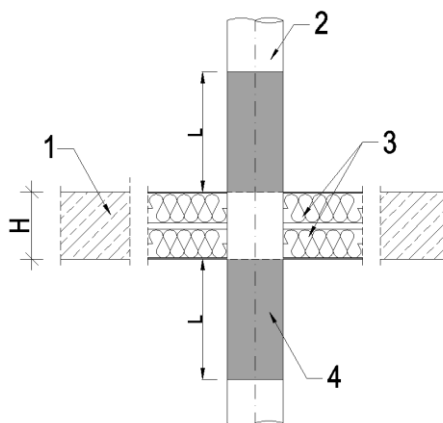


Fig. 2 Non-combustible pipe painted by INTU FR UNICOAT P, double mineral wool board

- 1 – flexible / rigid wall  $A \geq 100$  mm or rigid floor  $H \geq 150$  mm
- 2 – non-combustible pipe
- 3 – 2 x board INTU FR UNIBOARD 1S
- 4 – painting by INTU FR UNICOAT P

INTU FR UNICOAT P | TDS EN 3.1 | 5

ALFASEAL GROUP Sp. z o.o.

Kineskopowa 1  
05-500 Piaseczno, Poland  
VAT No.: PL1231274821

alfaseal.pl  
intuseal.com

+48 22 498 7 498

sprzedaz@alfaseal.pl  
sales@intuseal.com

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**Fig.3**

NON-COMBUSTIBLE PIPES in wall

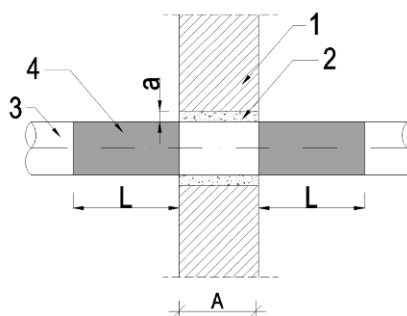
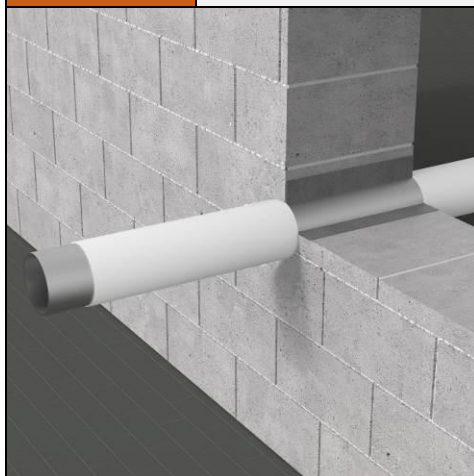


Fig. 3 Non-combustible pipe painted by **INTU FR UNICOAT P**, cement mortar in partition

- 1 – flexible / rigid wall  $A \geq 100$  mm
- 2 – cement mortar,  $a \leq 30$  mm
- 3 – non-combustible pipe
- 4 – painting by **INTU FR UNICOAT P** on both sides of the wall with length  $\geq L$

**Fig.4-5**

NON-COMBUSTIBLE PIPES in floor

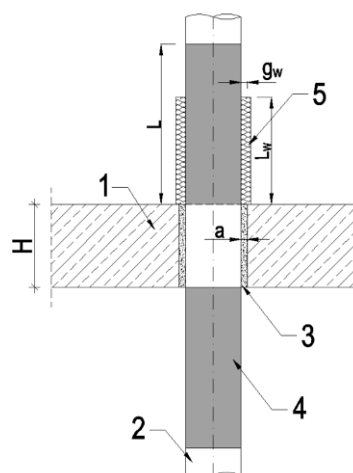
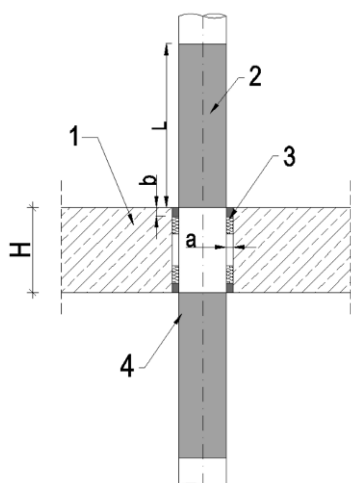


Fig. 4-5 Non-combustible pipe painted by **INTU FR UNICOAT P**, **INTU FR MASTIC** or cement mortar in partition

- 1 – rigid floor  $H \geq 150$  mm
- 2 – non-combustible pipe
- 3 – **INTU FR MASTIC** sealant – area between the pipe and supporting construction:  $a \leq 20$  mm, minimum depth of mass:  $b \geq 25$  mm on both sides of the floor, backfill material – mineral wool with density  $\geq 35$  kg/m<sup>3</sup>, depth  $\geq 25$  mm or cement mortar,  $a \leq 30$  mm
- 4 – painting by **INTU FR UNICOAT P** on both sides of the wall with length  $\geq L$
- 5 – local interrupted insulation – lamella mineral wool with minimum thickness "g<sub>w</sub>" minimum length "L<sub>w</sub>"

**Fig.6**

CABLES WITH **INTU FR UNICOAT P** partition filling 1 x board **INTU FR UNIBOARD 2S**

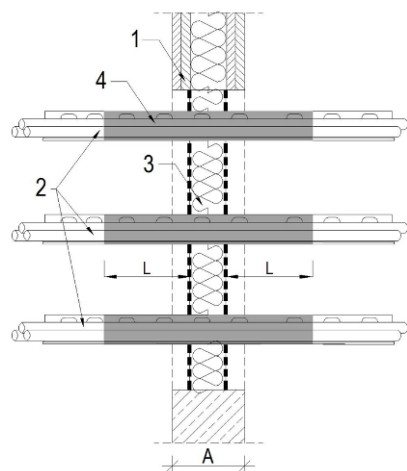
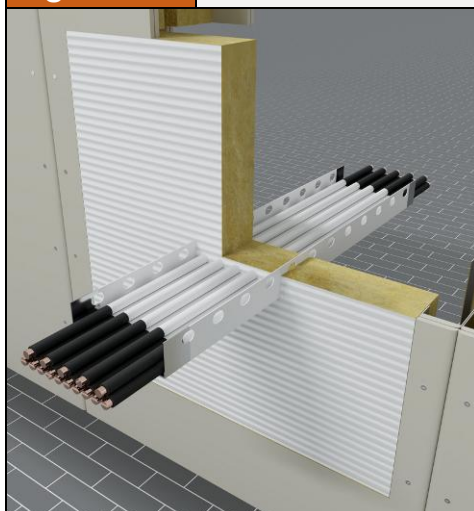


Fig. 6 Large cables penetration seal, single mineral wool board

- 1 – flexible / rigid wall  $A \geq 100$  mm
- 2 – cable, bundle of cables, cable tray / ladder
- 3 – partition filling 1 x board **INTU FR UNIBOARD 2S**
- 4 – painting by **INTU FR UNICOAT P**

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**Fig.7**

CABLES WITH INTU FR UNICOAT P partition filling 2 x board INTU FR UNIBOARD 1S

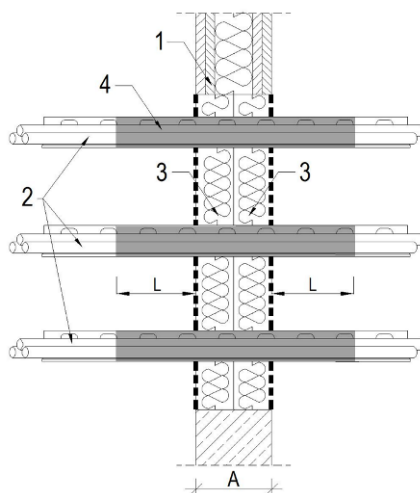
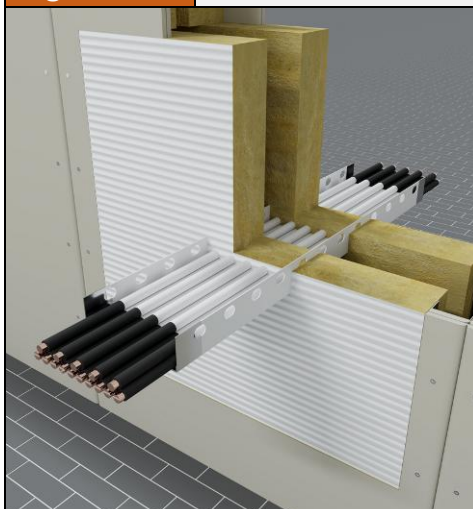


Fig. 7 Large cables penetration seal, double mineral wool board

- 1 – flexible / rigid wall  $A \geq 100$  mm
- 2 – cable, bundle of cables, cable tray / ladder
- 3 – partition filling 2 x board **INTU FR UNIBOARD 1S**
- 3 – isolated combustible pipe
- 4 – painting by **INTU FR UNICOAT P**

**Fig.8**

CABLES WITH INTU FR UNICOAT P partition filling 1 x board INTU FR UNIBOARD 2S

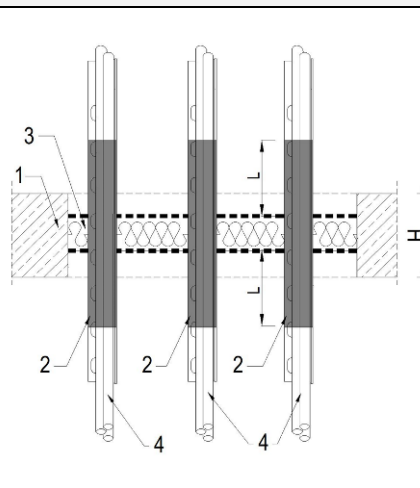
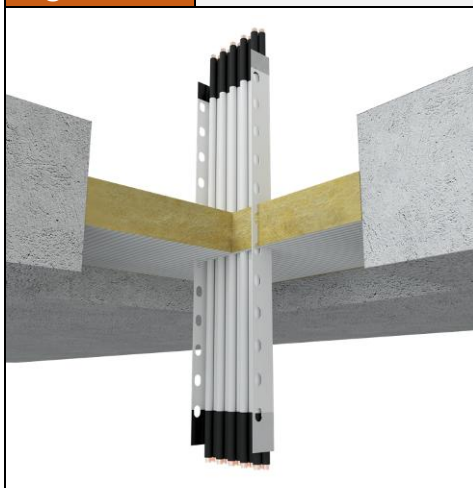


Fig. 8 Large cables penetration seal, single mineral wool board

- 1 – rigid floor  $H \geq 150$  mm
- 2 – painting by **INTU FR UNICOAT P**
- 3 – partition filling 1 x board **INTU FR UNIBOARD 2S**
- 4 – cable, bundle of cables, cable tray / ladder

**Fig.9**

CABLES WITH INTU FR UNICOAT P partition filling 2 x board INTU FR UNIBOARD 1S

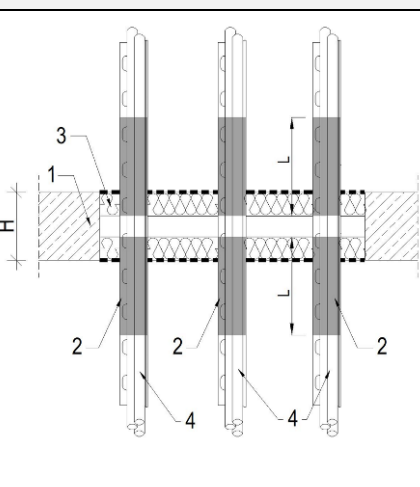
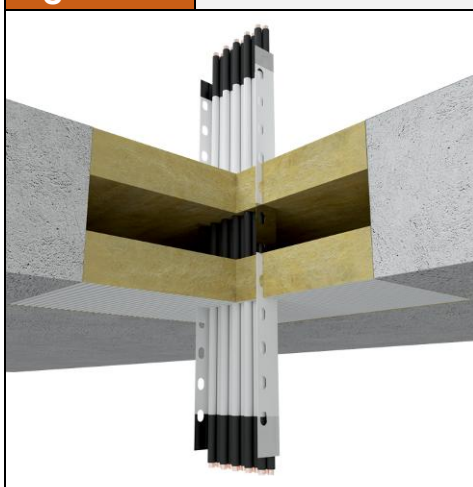


Fig. 9 Large cables penetration seal, double mineral wool board

- 1 – rigid floor  $H \geq 150$  mm
- 2 – painting by **INTU FR UNICOAT P**
- 3 – partition filling 2 x board **INTU FR UNIBOARD 1S**
- 4 – cable, bundle of cables, cable tray / ladder