INTU FR UNICOAT P

Fire rated intumescent coat

TDS Technical Data Sheet

CE

ETA

.INTUSEAL®

passive fire protection manufacturer

www.intuseal.com

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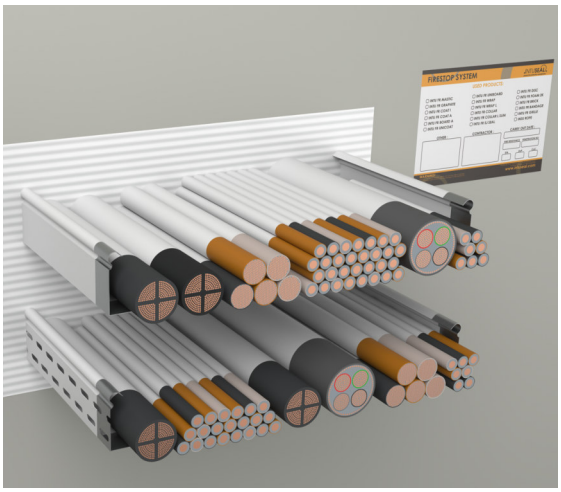
PRODUCT DESCRIPTION

The intended use of ablative paint **INTU FR UNICOAT P** is 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/m^3.
Rigid floor:	The floor must have a minimum thickness 150 mm, must comprise aerated or reinforced concrete, concrete, with a minimum density 550 kg/m^3.



AVAILABILITY

Product	Contents	Packaging	Pallet	Article no.
INTU FR UNICOAT P	3 kg	pail	147	INUP3KG
	12 kg	pail	48	INUP12KG

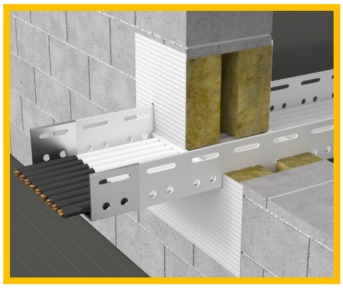
COMPLIANCE

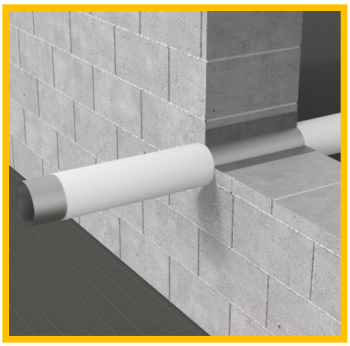
- *Test standard:*
  EN 1366-3 / EAD 350454-00-1104
- *European Technical Assessment:*
  ETA 24/1047 of 19/12/2024
- *Declaration of Performance:*
  DoP 6/2024
- *Certificate of Constancy of Performance*
  1488-CPR-1149/W

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.

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^2 – 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_2: 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

CABLES with partition filling by **INTU FR UNIBOARD**

Pipe material	Filling the partition	Cable diameter Ø [mm]	FLEXIBLE / RIGID WALLS		FLOORS	
			INTU FR UNICOAT P paint, thickness x width [mm]	Fire resistance C/U and C/C	INTU FR UNICOAT P paint thickness x width [mm]	Fire resistance C/U and C/C
Small cables	2 x INTU FR UNIBOARD 1S	Ø ≤ 21	1,0 x 150	EI 120	1,0 x 160	EI 120
Medium cables		21 < Ø ≤ 50				
Large cables		50 < Ø ≤ 80				
Cable bundle		$Ø_{CABLE}$ ≤ 21 $Ø_{BUNDLE}$ ≤ 100				
Non-sheathed cables (wires)		Ø ≤ 24				
Small cables	1 x INTU FR UNIBOARD 2S	Ø ≤ 21	1,0 x 200	EI 60	1,0 x 200	EI 60
Medium cables		21 < Ø ≤ 50				
Large cables		50 < Ø ≤ 80				
Cable bundle		$Ø_{CABLE}$ ≤ 21 $Ø_{BUNDLE}$ ≤ 100				
Non-sheathed cables (wires)		Ø ≤ 24				

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

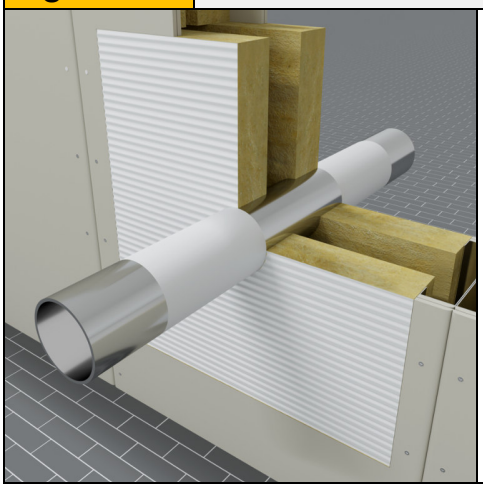
Pipe material	Filling the partition	Pipe diameter Ø [mm]	FLEXIBLE / RIGID WALLS			FLOORS		
			Pipe wall thickness [mm]	INTU FR UNICOAT P paint, thickness x width [mm]	Fire resistance C/U and C/C	Pipe wall thickness [mm]	INTU FR UNICOAT P paint thickness x width [mm]	Fire resistance C/U and C/C
Copper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

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 ≤ Ø ≤ 114,3	≥ 3,6	20 x 200	1,0 x 500	EI 90
				20 x 350		EI 120
		114,3 ≤ Ø ≤ 139,7	≥ 3,8	20 x 200	2,0 x 500	EI 60
		139,7 ≤ Ø ≤ 159,0	≥ 3,9	20 x 200		
		159,0 ≤ Ø ≤ 168,3	≥ 4,0	20 x 200		

➔ SOLUTION DETAILS

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



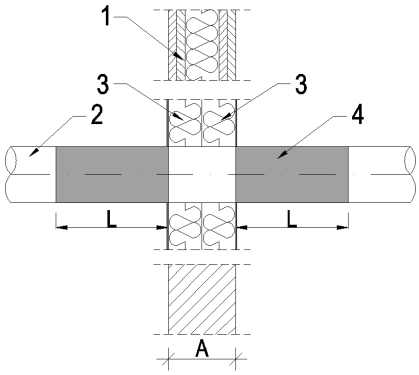
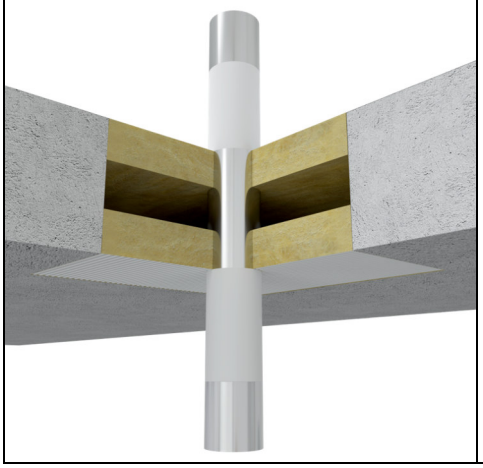


Fig. 1 Non-combustible pipe painted by **INTU FR UNICOAT P**, double mineral wool board

1 – flexible / rigid wall A ≥ 100 mm
or rigid floor H ≥ 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**



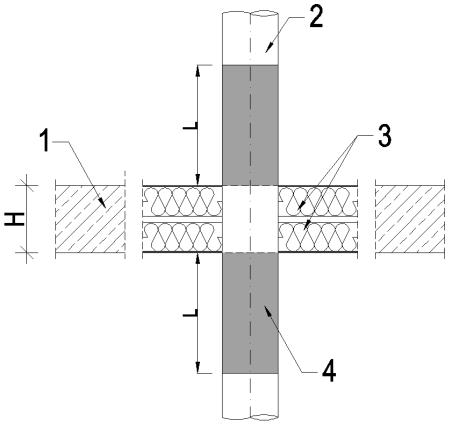
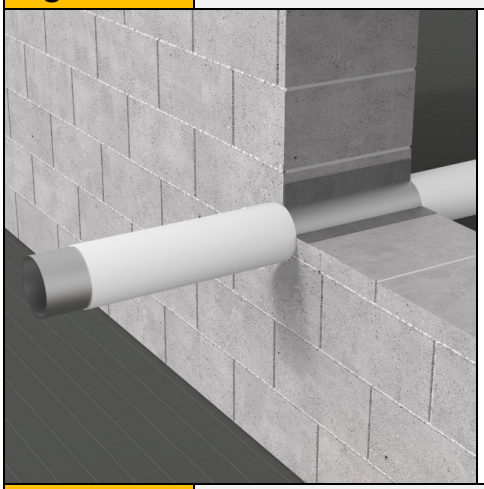


Fig. 2 Non-combustible pipe painted by **INTU FR UNICOAT P**, double mineral wool board

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

Fig.3 NON-COMBUSTIBLE PIPES in wall



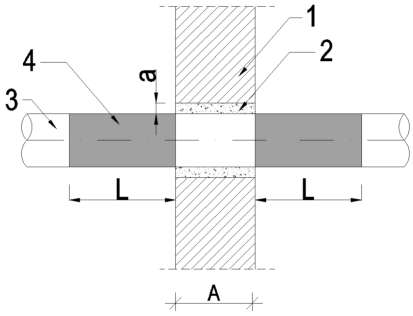
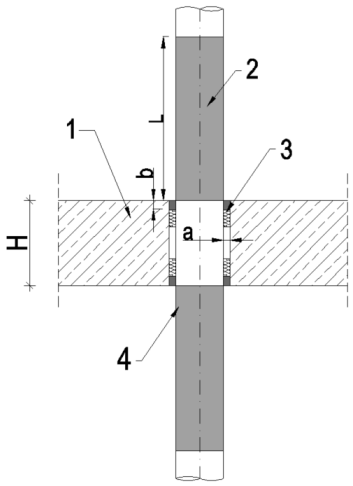


Fig. 3 Non-combustible pipe painted by **INTU FR UNICOAT P**, cement mortar in partition

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

Fig.4-5 NON-COMBUSTIBLE PIPES in floor



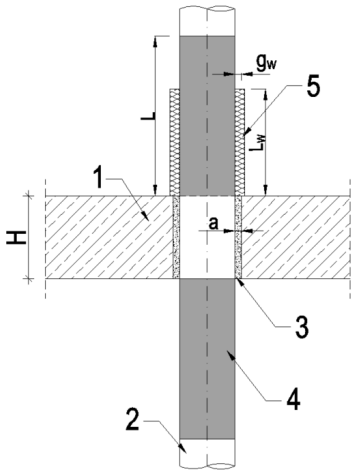
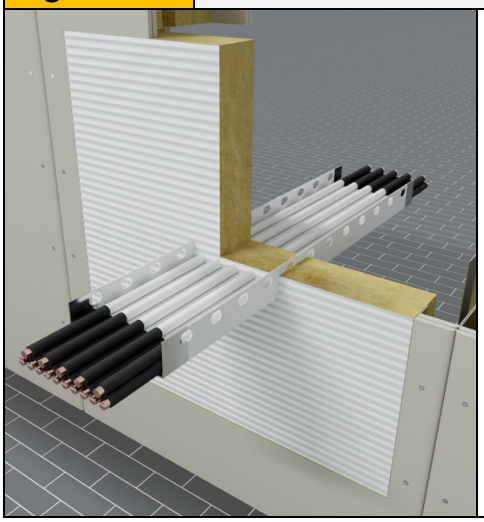


Fig. 4-5 Non-combustible pipe painted by **INTU FR UNICOAT P**, **INTU FR MASTIC** or cement mortar in partition

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

Fig.6 CABLES WITH **INTU FR UNICOAT P** partition filling 1 x board **INTU FR UNIBOARD 2S**



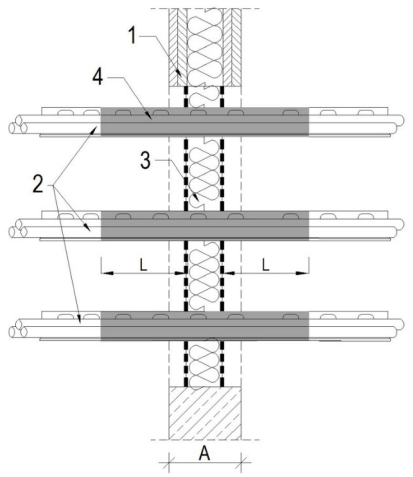
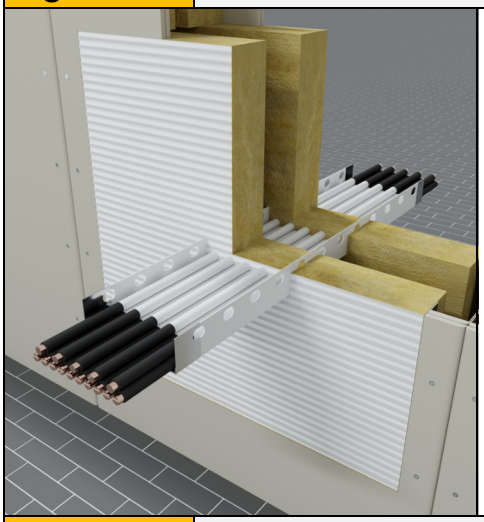


Fig. 6 Large cables penetration seal, single mineral wool board

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

Fig.7 CABLES WITH **INTU FR UNICOAT P** partition filling 2 x board **INTU FR UNIBOARD 1S**



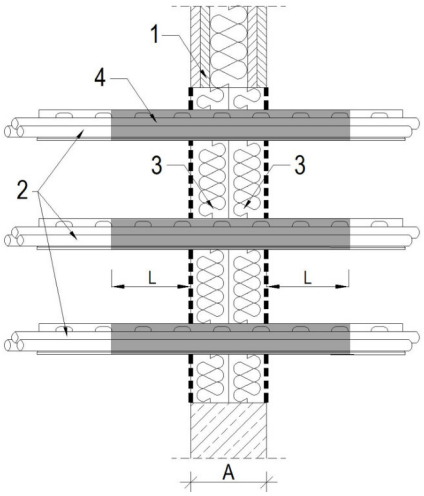
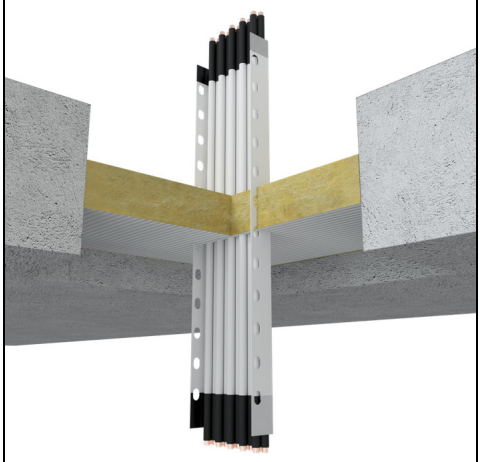


Fig. 7 Large cables penetration seal, double mineral wool board

1 – flexible / rigid wall A ≥ 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**



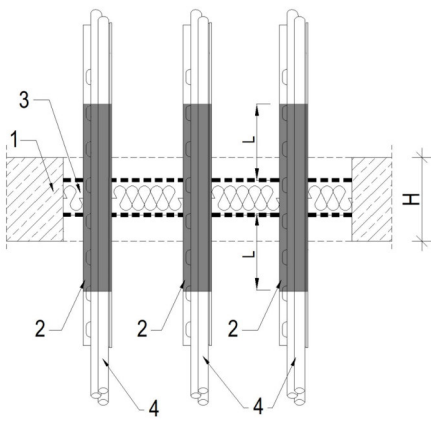
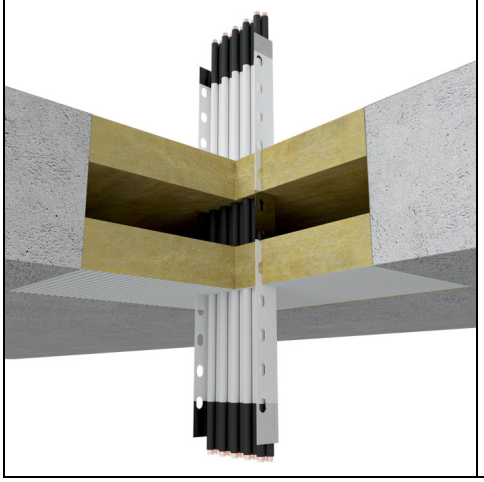


Fig. 8 Large cables penetration seal, single mineral wool board

1 – rigid floor H ≥ 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**



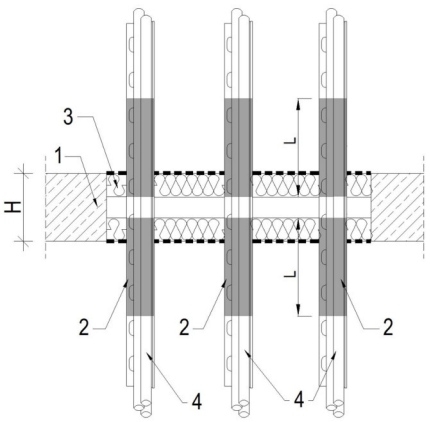


Fig. 9 Large cables penetration seal, double mineral wool board

1 – rigid floor H ≥ 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