INTU FR COAT A

Fire rated ablative coat

TDS Technical Data Sheet

.INTUSEAL®

passive fire protection manufacturer

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PRODUCT DESCRIPTION

The firestop ablative paint **INTU FR COAT A** is a one-component product designed for sealing fire protection penetrations and expansion joints with fire resistance class up to **EI 240**. Under fire conditions and the influence of high temperature, endothermic reactions take place in the product. The paint absorbs heat to a large extent, delaying the impact of fire on structural elements.

APPLICATION

The fire rated ablative coat **INTU FR COAT A** is designed for fire protection of: penetration seals with single or group of non-flammable pipes in floors or walls, expansion joints in floors or walls, electric cables in walls (combined with paint **INTU FR COAT I**).

Flexible wall:	The wall must be minimum thickness 125 mm. Must have a steel profile structure covered on both sides with minimum 2 layers of boards with minimum thickness 12,5 mm.
Rigid wall:	The wall must be minimum thickness 150 mm. Must have concrete, cellular concrete or masonry structure, with minimum density 600 kg/m^3.
Rigid floor:	The floor must be minimum thickness 150 mm. Must have concrete, cellular concrete or masonry structure, with minimum density 1700 kg/m^3.

AVAILABILITY

Contents	Colour	Packaging	Pallet	Article number
3 kg	White	Pail	147	INCA3KG
12,5 kg		Pail	48	INCA125KG
260 kg		Barrel	2	INCA260KG

INSTALLATION METHOD

1) Clean the surface of the hole and system components from grease and other contaminants thoroughly.
2) Mix the paint thoroughly before use. The paint does not require dilution, but if necessary, water can be added.
3) Cut the mineral wool board to the correct size and place the wool board in the hole/gap, next use **INTU FR COAT A** to paint mineral wool board.
4) Fill all gaps between services – mineral board or partition – mineral board with INTU FR MASTIC.
5) Use **INTU FR COAT A** ablative paint to make an overlap on the partition and on the mineral wool lamella placed on the metal pipe.

Approximate consumption of **INTU FR COAT A**: ~1,6 ÷1,7 kg/m^2 – for a dry film thickness of 1,0 mm.

Approximate dying time: ~60 min (dry to the touch), ~360 min (complete dry).

COMPLIANCE

- *European Technical Assessment:*
  Penetration seals: **ETA 19/0038 of 28/06/2019**
  Linear joints: **ETA 19/0037 of 28/06/2019**
- *Declaration of Performance:*
  Penetration seals: **DoP 5/2019**
  Linear joints: **DoP 7/2024**
- *Certificate of Constancy of Performance*
  Penetration seals: **1488-CPR-0756/W**
  Linear joints: **1488-CPR-0763/W**

TRANSPORT AND STORAGE

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

INTUSEAL Sp. z o.o.
Ul. Kineskopowa 1, 05-500 Piaseczno, Poland
E-mail: sales@intuseal.com

VIES: PL5223031827

➔ TECHNICAL DATA for metal pipes penetration seals

Pipe insulation configuration

Continuous | **Local**

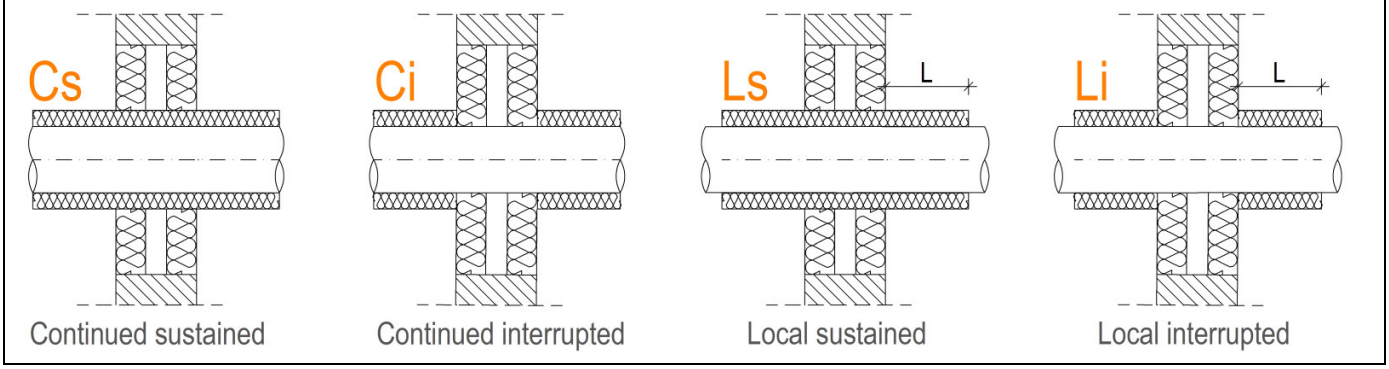


Table 1. Parameters for penetration seal of non-flammable pipes in RIGID WALL (partition filing: 2 x mineral wool board)

Type of penetrating element							Partition: RIGID WALL with thickness A ≥ 150 mm	
Pipe			Pipe insulation					
MINERAL WOOL INSULATED METAL PIPES Density of mineral wool on pipes ρ ≥ 37 kg / m³		Pipe wall thickness (mm)	Insulation length - L (mm)	Insulation thickness - g (mm)	Insulation config	Min. insulation painting with INTU FR COAT A length x thickness	Partition filling	Fire resistance classification C/U and C/C
Pipe material	Pipe diameter (mm)							
STEEL	Ø ≤ 42,4	2,0 – 14,2	L ≥ 250	≥ 30	Cs, Ci, Ls, Li	50 x 0,6	**2 x mineral wool board** (ρ ≥ 150kg/m³) thickness ≥ 60 mm coated on one side with 1 mm of **INTU FR COAT A** or **INTU FR BOARD A**	EI 120
	42,4 < Ø ≤ 48,3	2,2 – 14,2	L ≥ 250	≥ 30				
	48,3 < Ø ≤ 60,3	2,6 – 14,2	L ≥ 250	≥ 50				
	60,3 < Ø ≤ 76,1	3,1 – 14,2	L ≥ 250	≥ 50				
	76,1 < Ø ≤ 88,9	3,5 – 14,2	L ≥ 250	≥ 50				
	88,9 < Ø ≤ 108,0	4,0 - 14,2	L ≥ 250	≥ 50				
	108,0 < Ø ≤ 159,0	4,0 - 14,2	L ≥ 650	≥ 50				
	159,0 < Ø ≤ 219,0	4,5 – 14,2	L ≥ 650	≥ 50				
COPPER	Ø ≤ 6,0	≥ 0,8	L ≥ 500	≥ 30	Cs, Ci, Ls, Li	50 x 0,6	**2 x mineral wool board** (ρ ≥ 150kg/m³) thickness ≥ 60 mm coated on one side with 1 mm of **INTU FR COAT A** or **INTU FR BOARD A**	EI 120
	6,0 < Ø ≤ 22,0	≥ 1,0	L ≥ 700	≥ 50	Cs, Ls			EI 60
	22,0 < Ø ≤ 35,0	1,3 – 14,2	L ≥ 700	≥ 50				
	35,0 < Ø ≤ 42,0	1,5 – 14,2	L ≥ 700	≥ 50				
	42,0 < Ø ≤ 54,0	1,7 – 14,2	L ≥ 700	≥ 50				
	54,0 < Ø ≤ 88,9	2,2 – 14,2	L ≥ 700	≥ 50				

Table 2. Parameters for penetration seal of non-flammable pipes in RIGID FLOOR (partition filing: 2 x mineral wool board)

Type of penetrating element						Partition: RIGID FLOOR with thickness A ≥ 150 mm		
Pipe			Pipe insulation					
MINERAL WOOL INSULATED METAL PIPES Density of mineral wool on pipes ρ ≥ 37 kg / m³		Pipe wall thickness (mm)	Insulation length - L (mm)	Insulation thick - g (mm)	Min. insulation painting with INTU FR COAT A length x thickness (mm)	Partition filling	Fire resistance classification C/U and C/C	
							Pipe insulation configuration	
Pipe material	Pipe diameter (mm)						Cs, Ls	Ci, Li
STEEL	Ø ≤ 42,4	2,0 – 14,2	L ≥ 250	≥ 30	50 x 0,6	**2 x mineral wool board** (ρ ≥ 150kg/m³) thickness ≥ 60 mm coated on one side with 1 mm of **INTU FR COAT A** or **INTU FR BOARD A**	EI 180	EI 240
	42,4 < Ø ≤ 48,3	2,2 – 14,2	L ≥ 250	≥ 50			EI 120	EI 120
	48,3 < Ø ≤ 60,3	2,6 – 14,2	L ≥ 250	≥ 50				
	60,3 < Ø ≤ 76,1	3,1 – 14,2	L ≥ 250	≥ 50				
	76,1 < Ø ≤ 88,9	3,5 – 14,2	L ≥ 250	≥ 50				
	88,9 < Ø ≤ 108,0	4,0 - 14,2	L ≥ 250	≥ 50				
	108,0 < Ø ≤ 159,0	4,0 - 14,2	L ≥ 650	≥ 50				
	159,0 < Ø ≤ 219,0	4,5 – 14,2	L ≥ 650	≥ 50			-	
COPPER	Ø ≤ 6,0	≥ 0,8	L ≥ 500	≥ 30	50 x 0,6	**2 x mineral wool board** (ρ ≥ 150kg/m³) thickness ≥ 60 mm coated on one side with 1 mm of **INTU FR COAT A** or **INTU FR BOARD A**	EI 240	EI 240
	6,0 < Ø ≤ 22,0	≥ 1,0	L ≥ 500	≥ 30			EI 180	EI 60
	22,0 < Ø ≤ 35,0	1,3 – 14,2	L ≥ 500	≥ 30				
	35,0 < Ø ≤ 42,0	1,5 – 14,2	L ≥ 500	≥ 30				
	42,0 < Ø ≤ 54,0	1,7 – 14,2	L ≥ 500	≥ 30				
	54,0 < Ø ≤ 88,9	2,2 – 14,2	L ≥ 700	≥ 50			EI 90	EI 90

Table 3. Parameters for penetration seal of non-flammable pipes in RIGID FLOOR (partition filing: 1 x mineral wool board)

Type of penetrating element							Partition: RIGID WALL with thickness A ≥ 150 mm	
Pipe			Pipe insulation					
MINERAL WOOL INSULATED METAL PIPES Density of mineral wool on pipes ρ ≥ 37 kg / m³		Pipe wall thickness (mm)	Insulation length - L (mm)	Insulation thickness - g (mm)	Insulation config	Min. insulation painting with INTU FR COAT A length x thickness (mm)	Partition filling installed on the floor bottom	Fire resistance classification C/U and C/C
Pipe material	Pipe diameter (mm)							
STEEL	Ø ≤ 42,4	2,0 – 14,2	L ≥ 250	≥ 30	Cs, Ls	50 x 0,6	**1 x mineral wool board** (ρ ≥ 150kg/m³) thickness ≥ 60 mm coated on one side with 1 mm of **INTU FR COAT A** or **INTU FR BOARD A**	EI 90
	42,4 < Ø ≤ 48,3	2,2 – 14,2	L ≥ 250	≥ 50				EI 60
	48,3 < Ø ≤ 60,3	2,6 – 14,2	L ≥ 250	≥ 50				
	60,3 < Ø ≤ 76,1	3,1 – 14,2	L ≥ 250	≥ 50				
	76,1 < Ø ≤ 88,9	3,5 – 14,2	L ≥ 250	≥ 50				
	88,9 < Ø ≤ 108,0	4,0 - 14,2	L ≥ 250	≥ 50				

➔ SOLUTION DETAILS for metal pipes penetration seals

NON-FLAMMABLE PIPES (continuous insulation)

Fig. 1. Wall penetration A ≥ 150mm

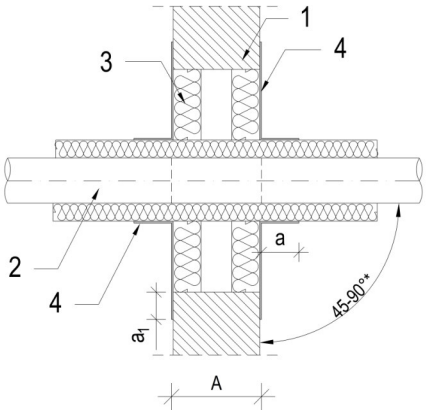
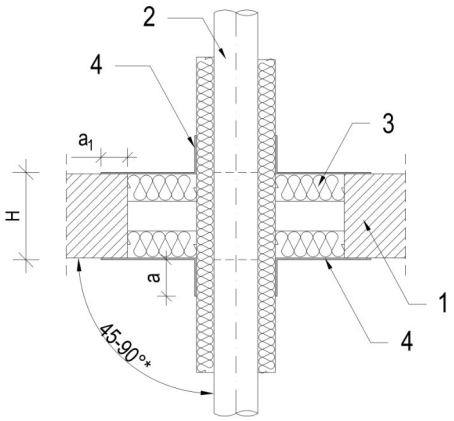
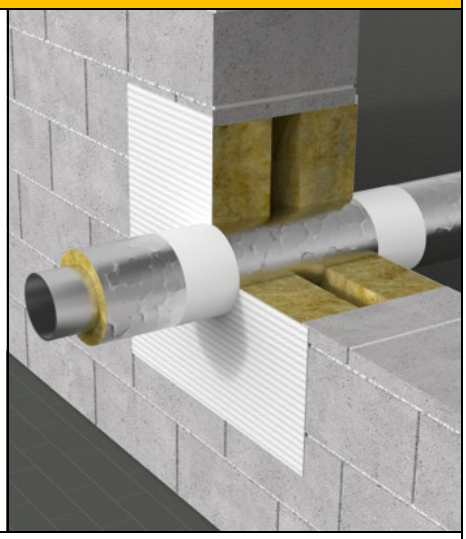


Fig. 2. Floor penetration H ≥ 150mm





1 – rigid wall or rigid floor
2 – non-flammable pipe
3 – mineral wool board with minimum thickness 60 mm and density ρ ≥ 150 kg/m³, coated **INTU FR COAT A** with 1mm dry layer thickness (or ready painted **INTU FR BOARD A**)
4 – mineral wool insulation, density ρ ≥ 37 kg/m³, length L and thickness g according to Technical Data
5 – **INTU FR COAT A** ablative paint, partition overlap a1 ≥ 10 mm; mineral wool insulation overlap a ≥ 50 mm

* Installations angled 45 ÷ 90° to the partition, based on PN-EN 1366-3 standard

NON-FLAMMABLE PIPES (non-continuous insulation)

Fig. 3. Wall penetration A ≥ 150mm

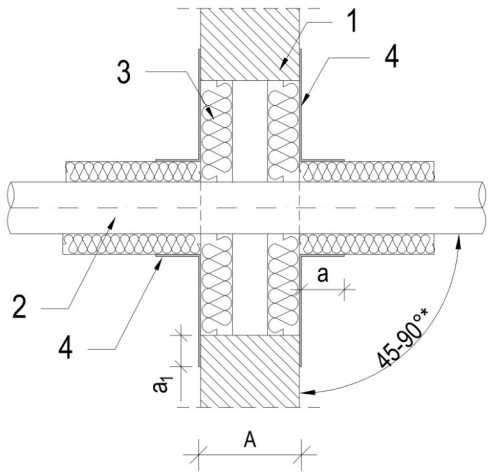
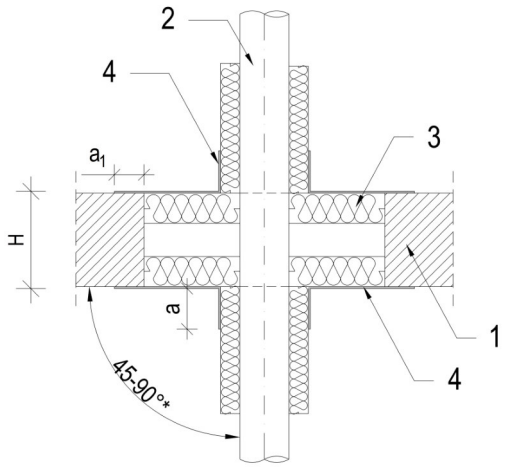


Fig. 4. Floor penetration A ≥ 150mm

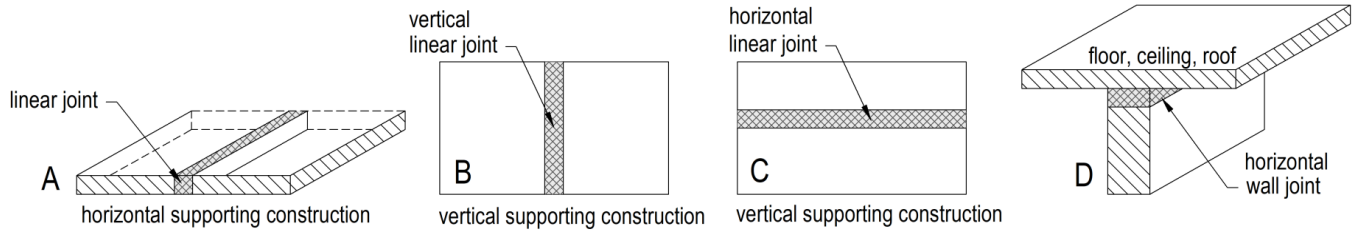


1 – rigid wall or rigid floor
2 – non-flammable pipe
3 – mineral wool board with minimum thickness 60 mm and density ρ ≥ 150 kg/m³, coated **INTU FR COAT A** with 1mm dry layer thickness (or ready painted **INTU FR BOARD A**)
4 – mineral wool insulation with density ρ ≥ 37 kg/m³, length L and thickness g according to Technical Data

* Installations angled 45 ÷ 90° to the partition, based on PN-EN 1366-3 standard

TECHNICAL DATA for linear joints

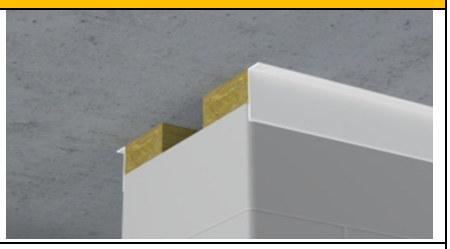
Possible orientation of linear joints seals



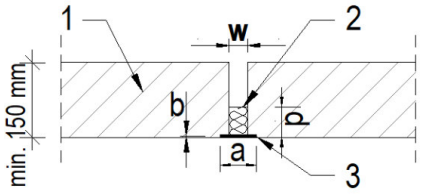
Fire resistance for linear joints in RIGID FLOOR gap with total width w ≤ 100 mm

Orientation: **A**
d ≥ 100 mm (depth of wool)

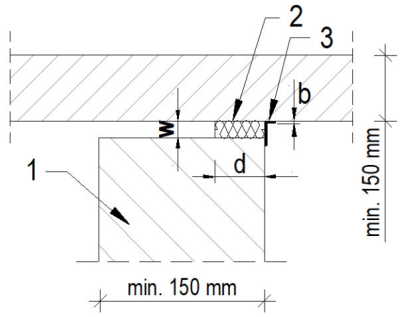
Orientation: **D**
d ≥ 100 mm (depth of wool)



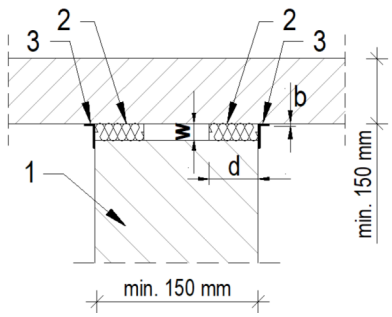
Orientation: **D**
d ≥ 50 mm (depth of wool)



EI120
Wool from any side of the partition



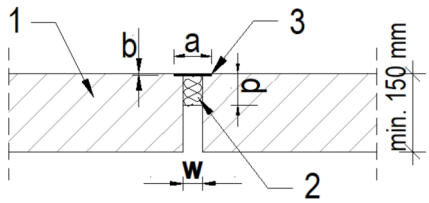
EI120 - EI240
Wool from any side of the partition



EI120
d ≥ 50 mm (depth of wool)

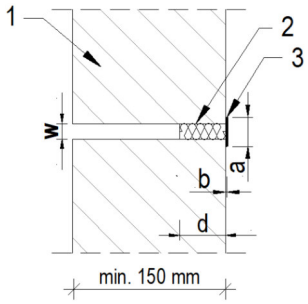
Fire resistance for linear joints in RIGID WALL gap with total width w ≤ 100 mm

Orientation: **B**
d ≥ 100 mm (depth of wool)



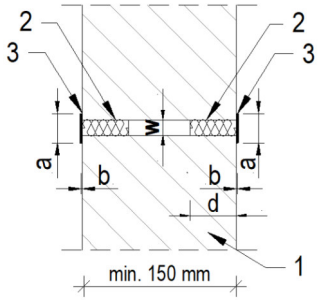
Vertical: **EI 120 - EI240**
Wool from any side of the partition

Orientation: **C**
d ≥ 100 mm (depth of wool)



Horizontal: **EI120 - EI180**
Wool from any side of the partition

Orientation: **B** or **C**



EI 120

1 – wall / floor with thickness ≥ 150 mm; gap with total width w ≤ 100 mm;
2 – **INTU FR BOARD A** and/or mineral wool with density ρ ≥ 150 kg/m³, min. depth 100 mm (coated on one side with **INTU FR COAT A**, with 1mm dry film thickness);
3 – coating of **INTU FR COAT A** on the mineral wool and wall (on one side of the wall):
- length a ≥ W + 2 x 5 mm (the wall is covered on the width of at least 5 mm from the both edges of linear joint)
- thickness b ≥ 1,0 mm (on the mineral wool) or b ≥ 0,6 mm on the wall