

INTU FR BOARD A

Fire rated ablative board

TDS Technical Data Sheet



INTUSEAL®
passive fire protection manufacturer



CE



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→ PRODUCT DESCRIPTION

The firestop board **INTU FR BOARD A** is composed of a mineral wool board with density 150kg/m³ and thickness 60 mm, covered on one side with ablative paint **INTU FR COAT A**. The product set is designed for sealing fire protection penetrations and preparing fire expansion joints with fire resistance class up to **EI 240**. In the fire conditions, under the influence of high temperature, endothermic reactions take place in the product. The paint absorbs heat, significantly delaying the impact of fire on structural components.

→ APPLICATION

INTU FR BOARD A is used for:

- fire protection of penetrations with single or group of non-flammable pipes in floors or walls
- protection of expansion joints in floors or walls
- fire protection of electric cables combined with intumescent paint **INTU FR COAT I** in walls

Rigid walls:

The wall must be minimum thickness 150mm. Must have concrete, cellular concrete or masonry structure, with minimum density 600 kg/m³.

Rigid floors:

The floor must be minimum thickness 150mm. Must have concrete, cellular concrete or masonry structure, with minimum density 1700 kg/m³.

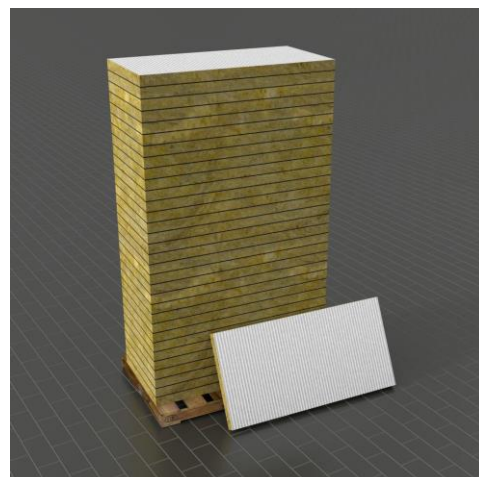
→ AVAILABILITY

Product	Thickness	Dimension	Pallet	Article number
INTU FR BOARD A 1S	60 mm	1200x600 mm	64	INBA601SI

→ INSTALLATION METHOD

1. Clean the hole surface and system components from grease and other contaminants thoroughly.
2. Cut the **INTU FR BOARD A** to correct size.
3. Place the **INTU FR BOARD A** in the hole/gap.

Application cases	
non-flammable pipes	expansion joints
Apply on pipe mineral wool insulation ($\rho \geq 37 \text{ kg/m}^3$). Paint mineral wool board and a part of the insulation by INTU FR COAT A according to solution details below.	Put loose mineral wool ($\rho \geq 50 \text{ kg/m}^3$) or mineral wool board in gap of 100 mm depth. Paint mineral wool board with INTU FR COAT A on one side of the partition. Prepare a partition overlap min 5 mm.



→ TRANSPORT AND STORAGE

Store in dry and cool conditions at temperatures between + 5°C and + 25°C. Shelf life as specified on the product label.

→ COMPLIANCE

- Reference standard:
penetration seals: EN 1366-3 / ETAG 026-2 / EAD 350454-00-1104
linear joint seals: EN 1366-4 / ETAG 026-3 / EAD 350141-00-1106
- DoP 6/2019
- DoP 12/2019
- Penetration seals: ETA 19/0038
Linear joint seals: ETA 19/0037
- Penetration seals: CoC 1488-CPR-0756/W
Linear joint seals: CoC 1488-CPR-0763/W
- Certification BREEAM
- TDS
- SDS

➔ **TECHNICAL DATA** for metal pipes penetration seals

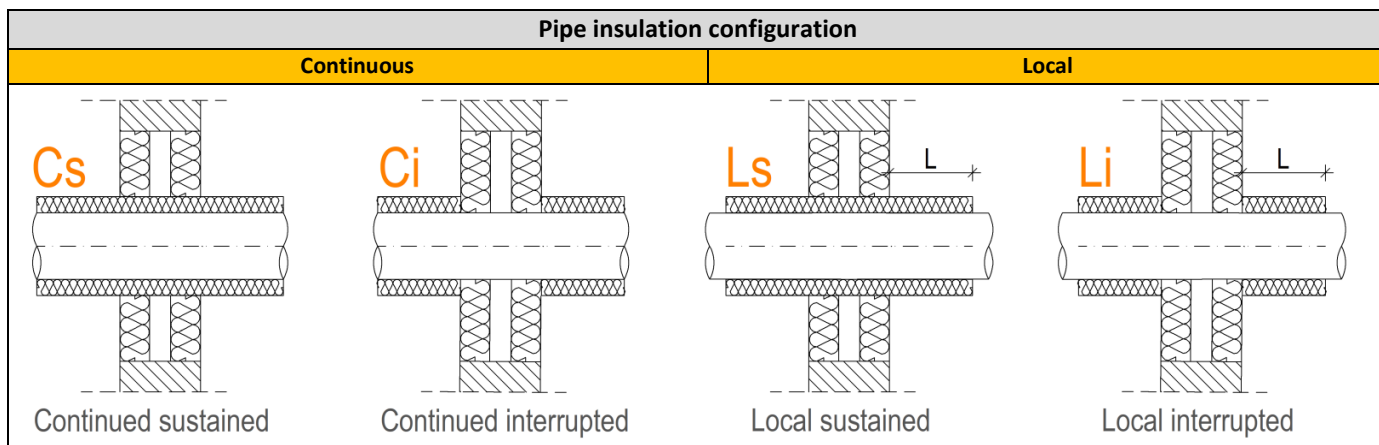


Table 1. Parameters for penetration seal of non-flammable pipes in RIGID WALL (partition filling: 2 x mineral wool board)

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

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			Partition filling installed on the floor bottom	Fire resistance classification C/U and C/C	
MINERAL WOOL INSULATED METAL PIPES Density of mineral wool on pipes ρ ≥ 37 kg / m ³		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)
Pipe material	Pipe diameter (mm)							
STEEL	∅ ≤ 42,4	2,0 – 14,2	L ≥ 250	≥ 30	Cs, Ls	50 x 0,6	1 x mineral wool board INTU FR BOARD A	EI 90
	42,4 < ∅ ≤ 48,3	2,2 – 14,2	L ≥ 250	≥ 50				EI 60
	48,3 < ∅ ≤ 60,3	2,6 – 14,2	L ≥ 250	≥ 50				
	60,3 < ∅ ≤ 76,1	3,1 – 14,2	L ≥ 250	≥ 50				
	76,1 < ∅ ≤ 88,9	3,5 – 14,2	L ≥ 250	≥ 50				
	88,9 < ∅ ≤ 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 $A \geq 150\text{mm}$

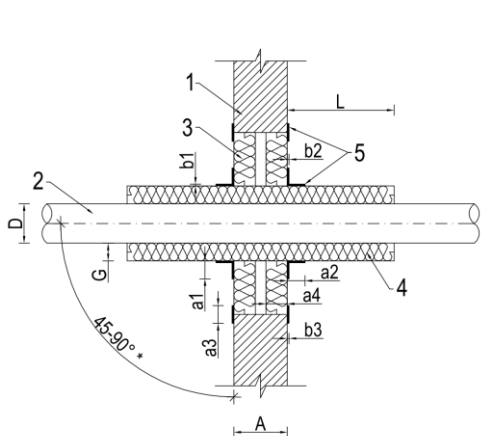
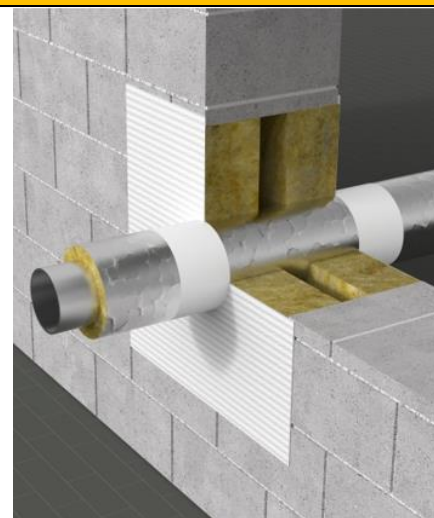
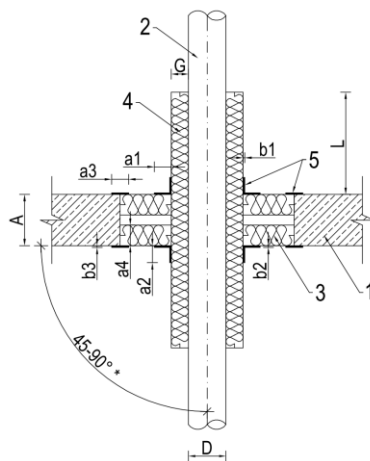


Fig. 2. Floor penetration $A \geq 150\text{mm}$



1 – floor/wall, thickness $A \geq 150\text{mm}$

2 – non-flammable pipe

3 – INTU FR BOARD A

4 – mineral wool insulation, density $\rho \geq 37 \text{ kg/m}^3$, length L and thickness G according to Technical Data

5 – INTU FR COAT A ablative paint, $a1 \geq 50 \text{ mm}$; $a2 \geq 50 \text{ mm}$; $a3 \geq 20 \text{ mm}$; $a4 \geq 60 \text{ mm}$; $b1 \geq 0,6 \text{ mm}$; $b2 \geq 0,6 \text{ mm}$; $b3 \geq 0,6 \text{ mm}$

* - Installations angled $45 \div 90^\circ$ to the partition, based on PN-EN 1366-3 standard

NON-FLAMMABLE PIPES (non-continuous insulation)

Fig. 3. Wall penetration $A \geq 150\text{mm}$

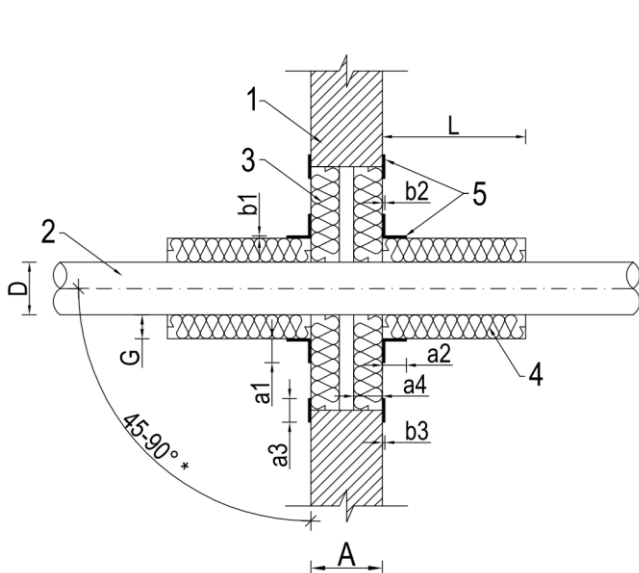
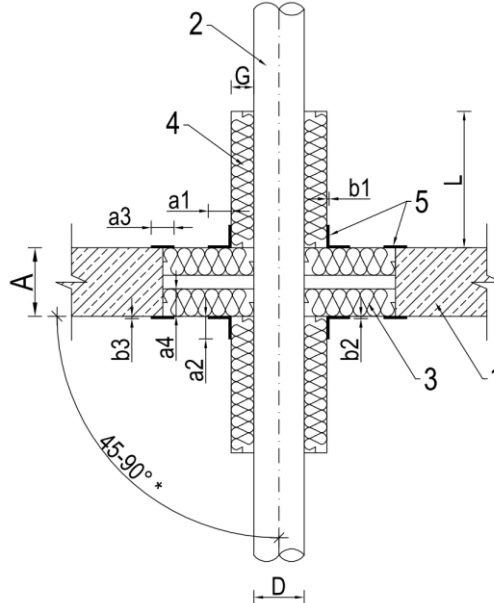


Fig. 4. Floor penetration $A \geq 150\text{mm}$



1 – floor/wall, thickness $A \geq 150\text{mm}$

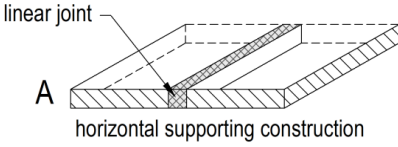
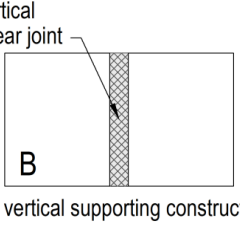
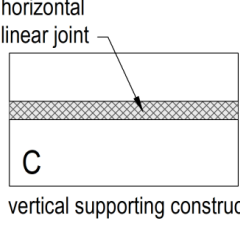
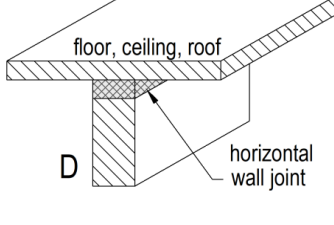
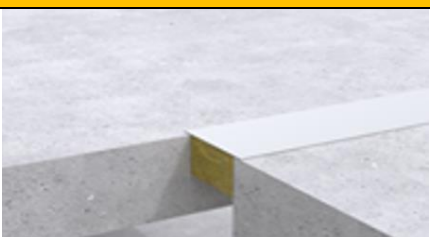
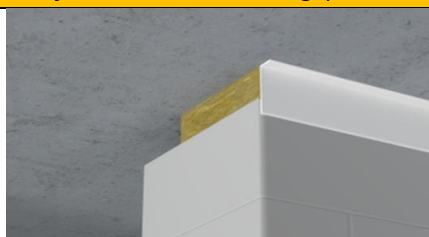
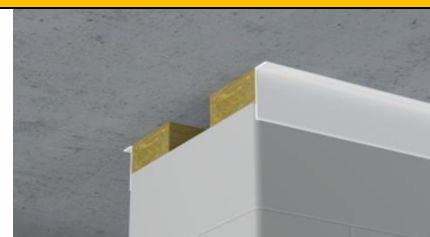
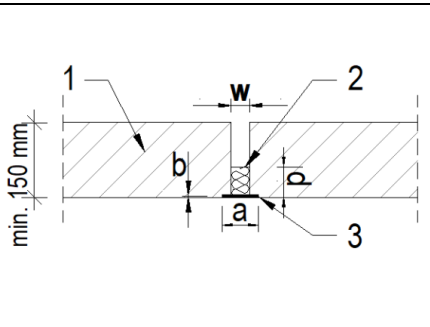
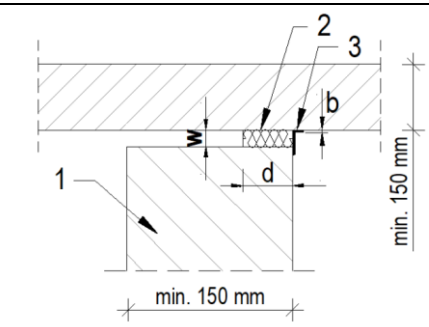
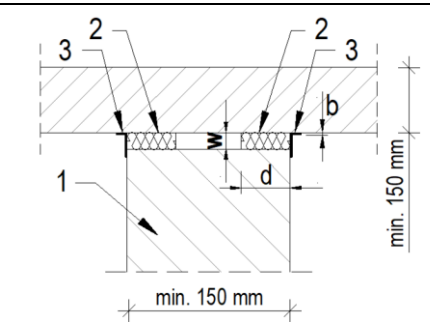
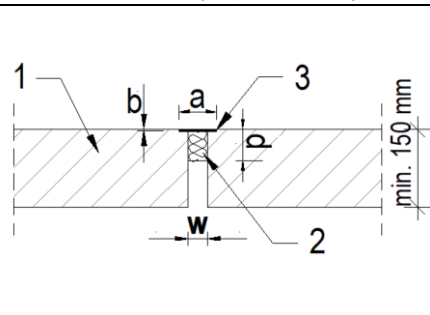
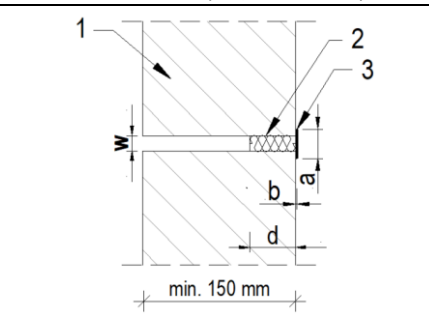
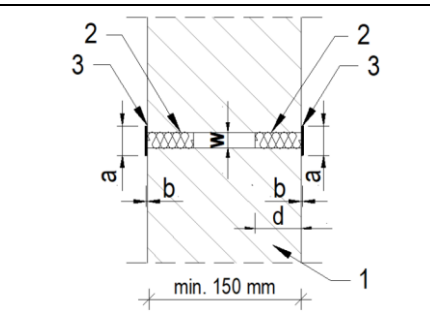
2 – non-flammable pipe

3 – INTU FR BOARD A

4 – mineral wool insulation with density $\rho \geq 37 \text{ kg/m}^3$, length L and thickness G according to Technical Data

5 – INTU FR COAT A ablative paint: $a1 \geq 50\text{mm}$; $a2 \geq 50 \text{ mm}$; $a3 \geq 20 \text{ mm}$; $a4 \geq 60 \text{ mm}$; $b1 \geq 0,6\text{mm}$; $b2 \geq 0,6\text{mm}$; $b3 \geq 0,6\text{mm}$

➔ TECHNICAL DATA for linear joints

Possible orientation of linear joints seals		
 <p>linear joint A horizontal supporting construction</p>	 <p>vertical linear joint B vertical supporting construction</p>	 <p>horizontal linear joint C vertical supporting construction</p>
 <p>D floor, ceiling, roof horizontal wall joint</p>		
Fire resistance for linear joints in RIGID FLOOR gap with total width $w \leq 100$ mm		
 <p>Orientation: A $d \geq 100$ mm (depth of wool)</p>	 <p>Orientation: D $d \geq 100$ mm (depth of wool)</p>	 <p>Orientation: D $d \geq 50$ mm (depth of wool)</p>
 <p>min. 150 mm 1 2 3 w b a p</p>	 <p>2 3 1 w b d min. 150 mm</p>	 <p>2 3 1 w b d min. 150 mm</p>
<p>EI120 Wool from any side of the partition</p>	<p>EI120 - EI240 Wool from any side of the partition</p>	<p>EI120 $d \geq 50$ mm (depth of wool)</p>
Fire resistance for linear joints in RIGID WALL gap with total width $w \leq 100$ mm		
<p>Orientation: B $d \geq 100$ mm (depth of wool)</p>	<p>Orientation: C $d \geq 100$ mm (depth of wool)</p>	<p>Orientation: B or C</p>
 <p>1 2 3 b a w p min. 150 mm</p>	 <p>1 2 3 w b a d min. 150 mm</p>	 <p>2 3 1 a b w b a d min. 150 mm</p>
<p>Vertical: EI 120 - EI240 Wool from any side of the partition</p>	<p>Horizontal: EI120 - EI180 Wool from any side of the partition</p>	<p>EI 120</p>
<p>1 – wall / floor with thickness ≥ 150 mm; gap with total width $w \leq 100$ mm; 2 – INTU FR BOARD A 3 – coating of INTU FR COAT A on the mineral wool and wall (on one side of the wall): - length $a \geq W + 2 \times 5$ mm (the wall is covered on the width of at least 5 mm from the both edges of linear joint) - thickness $b \geq 1,0$ mm (on the mineral wool) or $b \geq 0,6$ mm on the wall</p>		