

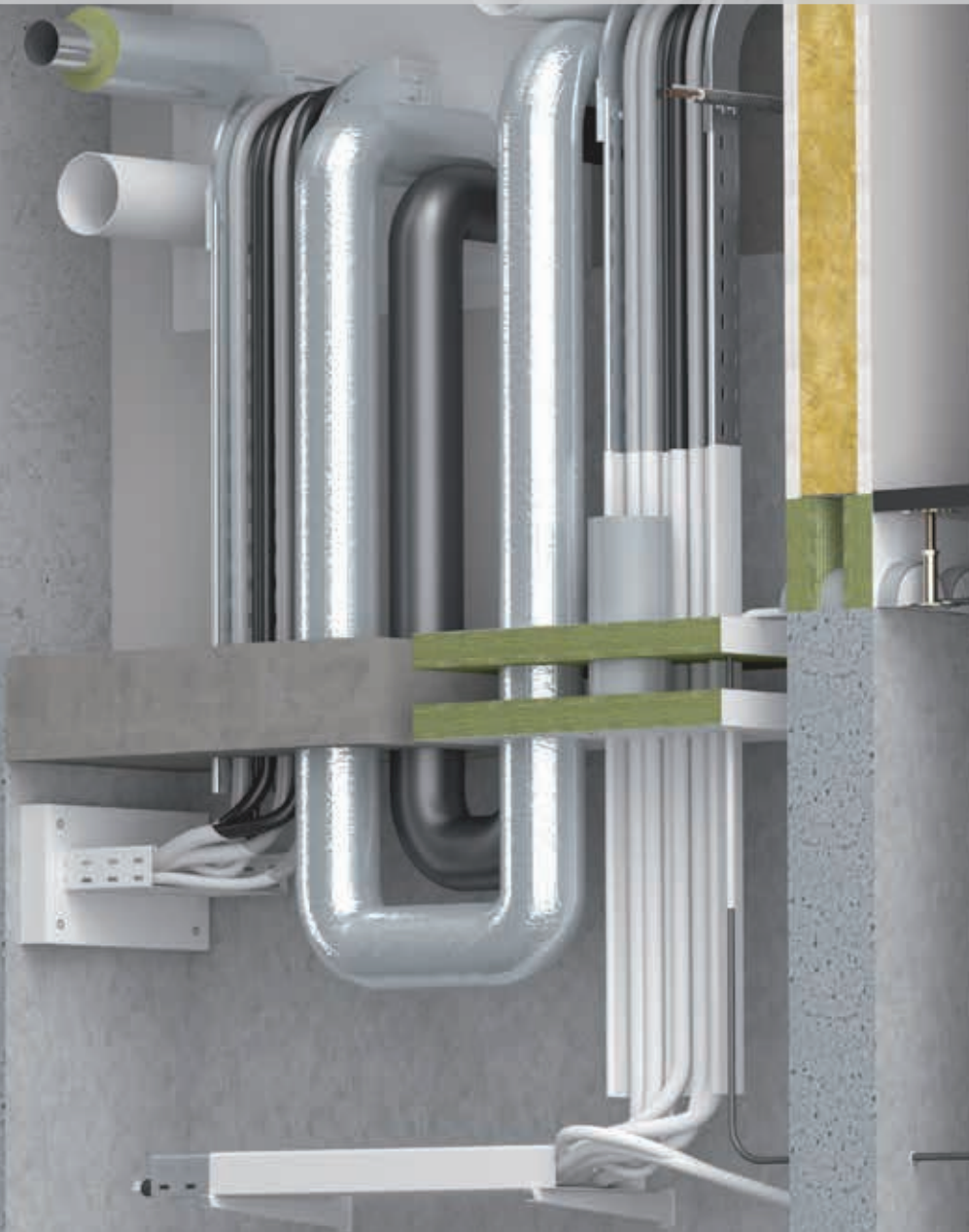
protect your values

svt

FIRE PROTECTION

PYRO-SAFE® Flammotect

The allrounder in fire protection



Versatile. Economical. Flexible.

safety via technology

Ready for the future.



Penetration sealings can be found in almost all modern buildings, as a large number of different electric cables and pipes pass through them across several fire compartments. When these supply and disposal lines pass through fire compartment partitions, they pose a high risk for the spread of fire and smoke.

Building joints are used to compensate movements between two components or to separate static components. They play an important role in the precise fitting of components and in preventing damage caused by their influence on those components. In the case of joints in the area of fire protection-classified building components, the joint filling system must satisfy fire protection requirements, fire rating and impermeability against heat and flue gas penetration.




Cable systems of various orientations and dimensions can be found in every building today. In public buildings, industrial plants and power plants these systems are numerous in proportion to their use. From a fire prevention perspective, unprotected cable systems are a potential hazard which should not be underestimated. In the event of a fire, electrical cables and cable trays can act like a fuse, allowing the fire to spread in an uncontrolled manner.

This brochure focuses on **European applications**, which are described in detail on the following pages.



Whether it's a penetration sealing with a wide variety of media, fire protection joint sealing or the coating of entire cable systems: the **diverse range of PYRO-SAFE® Flammotect applications** offers **effective and cost-efficient fire protection solutions** with tested and classified fire ratings of up to 240 minutes.

PYRO-SAFE® Flammotect – Applications



Penetration sealings

	Approval ETA-14/0418	System name PYRO-SAFE® ES PYRO-SAFE® Flammotect-V PYRO-SAFE® Flammotect single-layer PYRO-SAFE® Flammotect double-layer PYRO-SAFE® Flammotect four-layer	Fire rating max. EI 90 in accordance with EN 13501-2 max. EI 120 in accordance with EN 13501-2 max. EI 90 in accordance with EN 13501-2 max. EI 120 in accordance with EN 13501-2 max. EI 240 in accordance with EN 13501-2
	abZ Z-19.15-1334	PYRO-SAFE® Flammotect COMBI 90	Fire-resistant (S 90) in accordance with DIN 4102-9
	C-AJ-0156, C-AJ-1666, C-AJ-1680, C-AJ-1691, C-AJ-2812, C-AJ-2813, C-AJ-2832, C-AJ-2833, C-AJ-2834, C-AJ-4108, C-AJ-8274, F-A-0036, F-A-1149, F-A-1150, F-A-1164, F-A-1165, F-A-1167, F-A-2278, F-A-2279, F-A-2280, F-A-2282, F-A-2295, F-A-3062, F-A-3065, F-A-3070, F-A-4009, F-A-4016, F-A-4018, F-A-5060, F-A-5064, F-A-8041, F-A-8044, F-A-8046, F-A-8067 W-J-1262, W-J-1263, W-J-1284, W-J-1285, W-J-1287, W-J-1302, W-J-2325, W-J-2326, W-J-2328, W-J-2347, W-J-3225, W-J-3241, W-J-3264, W-J-4080, W-J-4089, W-J-4091, W-J-4095, W-J-5188, W-J-5199, W-J-8062, W-J-8065, W-J-8067, W-L-0054, W-L-1546, W-L-1548, W-L-2684, W-L-2685, W-L-2687, W-L-2688, W-L-2690, W-L-2689, W-L-3442, W-L-3443, W-L-4096, W-L-7273, W-L-7274, W-L-7275, W-L-8111, W-L-8113, W-L-8114, W-L-8115	PYRO-SAFE® Flammotect double-layer	FT rating max. 3 hours in accordance with UL 1479






Joint sealings

	ETA-18/0237	PYRO-SAFE® joint sealing FLAMMOTECT-A	max. EI 120 in accordance with EN 13501-2
	FF-S-0044, WW-S-0081	PYRO-SAFE® joint sealing FLAMMOTECT-A	FT rating max. 3 hours. in accordance with UL 1479

Cable coatings

	Certificate no.: TAE00002KF EN IEC 60332-3 Cat.A and EN IEC 60332-3-22 for 60 minutes, dry film thickness ≥ 0.5 mm	PYRO-SAFE® cable coating FLAMMOTECT-A	60 min.
	FM Approvals - Certificate of Compliance Approval Id.: 3037058 Certified dry film thickness of 1.6 mm in accordance with FM Approvals Class 3971		






PYRO-SAFE® Flammotect Penetration Sealings in accordance with EN

Systems		PYRO-SAFE® ES	PYRO-SAFE® Flammotect V	PYRO-SAFE® Flammotect single-layer	PYRO-SAFE® Flammotect double-layer	PYRO-SAFE® Flammotect four-layer
		max. EI 90	max. EI 120	max. EI 60 / EI 90	max. EI 120	max. EI 240
						
Installation in		Plasterboard wall, solid wall/floor	Shaft wall, plasterboard wall, solid wall/floor	Plasterboard wall, solid wall/floor	Plasterboard wall, solid wall/floor	Solid wall/floor
Component thickness [mm]	Wall	≥ 100	≥ 40	≥ 100	≥ 100	≥ 240
	Floor	≥ 125	≥ 150	≥ 150	≥ 150	≥ 200
Penetration sealing thickness [mm]	Wall	≥ 100	≥ 100	≥ 60	≥ 120	≥ 240
	Floor	≥ 125	≥ 100	≥ 60	≥ 150	≥ 240
Maximum penetration sealing dimensions Wall (width x height) [mm]		350 x 150 (angular) Ø ≤ 150 (round)	1175 x 800	1175 x 1200	1400 x 2000	600 x 600
Maximum penetration sealing dimensions Floor (width x height) [mm]		350 x 150 (angular) Ø ≤ 160 (round)	1300 x 1100	1200 x 1400 or 800 x ∞	1400 x 2000	600 x ∞

Allowed services [mm]

Cable-Ø	≤ 21	≤ 80	≤ 80	≤ 80	≤ 80
Cable bundles (bundle-Ø / cable-Ø)	≤ 100 / ≤ 21	≤ 150 / ≤ 21	≤ 100 / ≤ 21	≤ 100 / ≤ 21	≤ 100 / ≤ 21
Cable support systems	-	✓	✓	✓	✓
HF coaxial cables (bundle-Ø / cable-Ø)	-	≤ 90 / ≤ 14	-	-	-
Electrical installation conduits Single (conduit-Ø / cable-Ø)	≤ 32 / ≤ 21	≤ 32 / ≤ 21	≤ 32 / ≤ 21	≤ 32 / ≤ 21	-
Electrical installation conduits Bundle (bundle-Ø / conduit-Ø / cable-Ø)	≤ 100 / ≤ 32 / ≤ 21	≤ 100 / ≤ 32 / ≤ 21	≤ 100 / ≤ 32 / ≤ 21	≤ 100 / ≤ 32 / ≤ 21	-
PE pipes "speed pipes"	-	24x ≤ 7 7x ≤ 10 5x ≤ 12	24x ≤ 7 7x ≤ 10 5x ≤ 12	24x ≤ 7 7x ≤ 10 5x ≤ 12	-
Combustible pipes	≤ 32	≤ 110	≤ 110	≤ 160	-
Multilayer composite pipes	-	≤ 63	≤ 63	≤ 63	-
Non-combustible pipes mineral fibre	-	≤ 114.3	≤ 219.1	≤ 323.9	-
Non-combustible pipes FEF	-	≤ 42	≤ 170.0	≤ 170.0	-
HVAC split line combinations	✓	✓	✓	✓	-
Double solar pipes "NanoSUN"	≤ DN 40	-	≤ DN 40	≤ DN 40	-

PYRO-SAFE® joint sealing FLAMMOTECT-A in accordance with EN

Design options		Lamella mat	Loose mineral wool	Fire protection filler	Mineral fibreboards (double-layer)	Mineral fibreboards (single-layer)
						
Installation in		Solid wall/floor	Floor	Solid wall/floor	Solid wall/floor	Floor
Component thickness [mm]	Wall	≥ 100	-	≥ 100	≥ 150	-
	Floor	≥ 150	≥ 150	≥ 150	≥ 150	≥ 150
Min. joint depth [mm]		≥ 90	≥ 75	≥ 8	≥ 100	≥ 50
Maximum joint width [mm]		≤ 100	≤ 20	≤ 4	≤ 200	≤ 200
Fire resistance class		EI 120- H-X-B-W 00-W 100 T-X-B-W 00-W 100	EI 120- H-X-B-W 00-W 20	EI 120- H-X-B-W 00-W 04 V-X-B-W 00-W 04 T-X-B-W 00-W 04	EI 120- H-X-B-W 00-W 200 V-X-B-W 00-W 200 T-X-B-W 00-W 200	EI 60- H-X-B-W 00-W 200

The ablative fire protection coating

The cooling effect of ablative coatings is due, for instance, to the release of chemically bonded water. In the event of fire, ingredients of this coating release water starting at approx. 200 °C, cool the material surface and dilute the concentration of combustible gases. This reduces the intensity of the fire on the coated material. The ingredients of the coating also form a microporous protective layer after the chemical processes are completed, which additionally protects the surface by thermal insulation.

The optimum cable coating

Colour		White, other colours on request		
Density (at +20 °C)		1.34 - 1.48 g/cm ³		
Volatile organic compounds (VOC)		< 50 g/l (GS-11, Green Seal Standard)		
Viscosity	Coating	6,000 - 10,000 mPas (viscosity can be adjusted by adding up to 2% water)		
	Solid emulsion	25,000 - 40,000 mPas (viscosity can be adjusted by adding up to 5% water)		
	Filler	Paste-like		
Area of application	Coating	Thin film coating		
	Solid emulsion	Thick film coating		
	Filler	Sealing of large openings and joints, as well as for very high film thickness		
Application instructions		<ul style="list-style-type: none"> • Processing only at temperatures from +5°C to +30°C and relative humidity of less than 85%. • Substrates being coated must be free of impurities and old coatings. 		
Application type	Coating	<ul style="list-style-type: none"> • Painting with brush or roller • Airless spray gun (nozzle bore > 0.019" = 0.48 mm) 		
	Solid emulsion	<ul style="list-style-type: none"> • Painting with brush or spatula • Airless sprayer (nozzle bore > 0.019" = 0.48 mm) 		
	Filler	<ul style="list-style-type: none"> • Application with spatula 		
Example consumption	Solid material (weight)	Consumption [g/m ²]	Film thickness [mm]	
			Wet	Dry
	66 - 86%	1,000	approx. 0.9	approx. 0.5
		2,000	approx. 1.8	approx. 1.0
		3,200	approx. 2.9	approx. 1.6
4,000		approx. 3.6	approx. 2.0	

Drying times at +23°C and 65% relative humidity		Dust-dry	Reworkable with itself	Completely dry
	Coating	min. 4 hours	min. 8 hours	min. 4 days
	Solid emulsion	min. 4 hours	min. 8 hours	min. 4 days
	Filler	min. 6 hours	-	min. 10 days
Storage and shelf life		Protect from frost. Store at room temperature (+5 °C to +30 °C). Can be stored for 18 months in original sealed pails.		
General safety information		PYRO-SAFE® FLAMMOTECT-A is a non-hazardous material according to the German GefStoffV regulation and a non-hazardous good according to GGVS/ADR. For further details refer to the safety data sheet.		

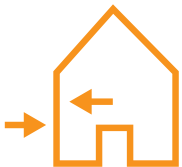
The allrounder in fire protection

PYRO-SAFE® FLAMMOTECT-A

Fire protective coating



Large number of approved conduit transits



Indoor and outdoor use



Available in three viscosities

Areas of application

- Penetration sealing systems
- Fire protection joints
- Cables and cable systems

Your benefits at a glance

- ✓ A real all-rounder: whether it's penetration sealing with a wide variety of media, fire protection joint sealing or the coating of entire cable systems
- ✓ Resistant to moisture, frost-thaw cycles, UV radiation and various oils and chemicals
- ✓ The three different viscosities enable simple and time-efficient application for any type of use

PYRO-SAFE® FLAMMOTECT-A

Packaging	Pail	
	12.5 kg	15 kg
Pail	12.5 kg	15 kg
Quantity	40 pcs. / pallet	32 pcs. / pallet
Gross weight	Approx. 540 kg	Approx. 520 kg
Item		
Coating	01155101	01155105
Solid emulsion	01155106	01155107
Filler	01155104	01155109

If you would like to place an **order**, please contact us by telephone or e-mail:

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Fire protection worldwide



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