

Protect your values.



# PYRO-SAFE® Novasit BM Penetration Sealing Systems

Penetration seals made of fire protection compound. For a great range of different media lines



# Penetration Seals – for Safe Separation of Fire Compartments

Penetration seals fulfil an important function in almost all modern buildings: They prevent fire jumping from one fire compartment to the next. As a result of the multitude of electrical conduits and pipes that pass through a building, open penetrations are created that also cross through fire-protection walls and floors and pose a high risk for the spread of fire and smoke. In order to guarantee long-term safety, these openings must be professionally sealed with high-quality fire protection products.



# Tried and Tested Sealing System for Almost All Media Worldwide

Internationally tested and approved fire penetration seals in residential and commercial buildings, industrial plants, and power stations have been produced with the fire protection compound PYRO-SAFE® NOVASIT BM for over 30 years now. The penetration seals are rated for 120 minutes or 240 minutes, depending on the requirements for fire resistance duration. The PYRO-SAFE® Novasit BM penetration sealing system is able to seal almost all commercially available media with a wide range of diameters and/or insulation types in solid walls and floors. The fire protection compound can now also be used to seal electrical cables in plasterboard walls against fire penetration.

#### Applying the fire protection compound could not be easier

PYRO-SAFE® NOVASIT BM is simply mixed with water, before being ready to apply immediately – either manually or with a pump. Thanks to the extremely high adhesive force of the mortar, it is possible to forego shuttering in the majority of application cases. There is no need to trim and adjust the system panels either – the fire protection compound simply fits around the existing lines.

More than one million square metres of penetration seals have been realised around the world with PYRO-SAFE® NOVASIT BM, firmly attesting to its outstanding performance.

# The svt Product Guide

Find the right fire protection solution quickly and directly online. With the svt Product Guide, we provide you with a practical tool for simplifying the complex decision-making process relating to passive structural fire protection, and guide you step by step to the right fire protection system for your individual requirements.



You can find the svt Product Guide at: svt-global.com/productguide

# PYRO-SAFE<sup>®</sup> Novasit BM

Most comprehensive penetration seal made from fire protection compound, with a maximum fire resistance class of EI 120 for sealing large openings in solid walls and floors. Suitable for complex penetrations, which can be consolidated through a common opening.

Penetration of Electrical Installations and Combustible/ Non-Combustible Pipes

Fire Resistance Class: Up to El 120 acc. to EN-13501-2



Certificate of usability	ETA-16/0132	
	Solid wall	Floor
Component thickness	≥ 150	≥ 150
Penetration seal thickness	≥ 150	≥ 150
Penetration seal size	1200 x 2000	1200 x 2000



## Penetration of Electrical Installations

Media I	ines		Diameter (max.)	Measure	Fire resistance Wall	class (max.) Floor
			≤ 32 (cable)	-	EI 120	EI 120
Cables			≤ 60 (cable bundles)	-	EI 120	EI 120
	Cable bundles Cable support structures	≤ 80 (cable)	PYRO-SAFE <sup>®</sup> DG-CR 1.5 fire protection wrap	=	=	
	≤ 100 (cable bundles)/ ≤ 21 (cables)	PYRO-SAFE <sup>®</sup> DG-CR 1.5 fire protection wrap	EI 120	EI 120		
	EIC Single		≤ 63	PYRO-SAFE® DG-CR 1.5 fire protection wrap		
			≤ 100	PYRO-SAFE <sup>®</sup> DG-CR 1.5 fire protection wrap + lamella mat protective insulation	EI 120 U/U	EI 90 U/U
	EIC	Bundle	≤ 100 PYRO-SAFE® DG-CR 1.5 fire protection wrap			
<b>\$</b>	PE lines,	"speed pipes"	max. 24 pcs., pipe outer $\leq$ 7 max. 7 pcs., pipe outer $\leq$ 10 max. 5 pcs., pipe outer $\leq$ 12	PYRO-SAFE® DG-CR 1.5 fire protection wrap	EI 120 U/U	EI 120 U/U

All measurements in mm

## Penetration of Combustible/Non-Combustible Pipes

Media li	nes	Diameter (max.)	Measure	Fire resistance Wall	class (max.) Floor
	Combustible sizes	≤ 110	PYRO-SAFE <sup>®</sup> DG-CR BS fire protection wrap	EI 120 U/U	EI 120 U/U
	Combustible pipes	≤ 160	PYRO-SAFE <sup>®</sup> DG-CR BS fire protection wrap	EI 120 U/C	EI 120 U/C
	"HENCO" multilayer composite pipes	≤ 63	Protective insulation from lamella mat or "Armaflex Protect"	EI 120 U/C	EI 120 U/C
		≤ 88.9 (copper)	-	EI 120 C/U	EI 120 C/U
	Non-combustible pipes with lamella mat mineral fibre insulation	≤ 168.3 (steel, stainless steel, cast iron)	-	EI 120 C/U	EI 120 C/U
	Insulation	≤ 323.9 (steel, stainless steel, cast iron)	Lamella mat protective insulation	EI 120 C/U	EI 120 C/U
		≤ 108 (copper)	-	EI 120 C/U	EI 120 C/U
	Non-combustible pipes with	≤ 168.3 (steel, stainless steel, cast iron)	-	EI 120 C/U	EI 120 C/U
	"Conlit 150U" mineral fibre insulation	≤ 219.1 (steel, stainless steel, cast iron)	Lamella mat protective insulation	EI 120 C/U	EI 120 C/U
	≤ 323.9 (steel, stainless steel, cast iron)	Lamella mat protective insulation	EI 120 C/U	EI 90 C/U	
		≤ 54 (copper)	PYRO-SAFE <sup>®</sup> DG-CR 1.5 fire protection wrap	EI 120 C/U	EI 120 C/U
	Non-combustible pipes	≤ 76 (copper)	PYRO-SAFE <sup>®</sup> DG-CR 1.5 fire protection wrap	-	EI 120 C/U
	with FEF "NH/Armaflex" insulation	≤ 108 (copper)	PYRO-SAFE <sup>®</sup> DG-CR 1.5 fire protection wrap + lamella mat protective insulation	EI 120 C/U	EI 120 C/U
		≤ 168.3 (steel, stainless steel, cast iron)	PYRO-SAFE <sup>®</sup> DG-CR 1.5 fire protection wrap + lamella mat protective insulation	EI 120 C/U	EI 120 C/U
		≤ 88.9 (copper)	-	EI 120 C/U	EI 120 C/U
	Non-combustible pipes with FEF "Armaflex Protect" insulation	≤ 108 (copper)	Lamella mat protective insulation	EI 120 C/U	EI 120 C/U
		≤ 170 (steel, stainless steel, cast iron)	Lamella mat protective insulation	EI 90 C/U	EI 90 C/U
2	Split air conditioning line combinations	<ul> <li>✓</li> </ul>	PYRO-SAFE® DG-CR 1.5 fire protection wrap	EI 120	EI 90
6	"NanoSUN <sup>2</sup> " double solar tubes	DN 25	PYRO-SAFE <sup>®</sup> DG-CR 1.5 fire protection wrap	EI 120 C/U	EI 120 C/U
00	Hydraulic hoses	≤ 55.9	PYRO-SAFE <sup>®</sup> DG-CR 1.5 fire protection wrap + lamella mat protective insulation	EI 120	EI 120

# PYRO-SAFE® Novasit BM for PBW

Penetration seal from fire protection compound with a maximum fire resistance class of EI 120, for sealing openings in plasterboard walls with a penetration seal thickness of only 100 mm.

# Penetration of Electrical Installations

Fire Resistance Class: Up to El 120 acc. to EN-13501-2



#### System Data

Certificate of usability	ETA-16/0132
	Plasterboard wall
Component thickness	≥ 100
Penetration seal thickness	≥ 100
Penetration seal size	550 x 600

All measurements in mm

#### Penetration of Electrical Installations

Media li	ines		Diameter (max.)	Measure	Fire resistance Wall	class (max.) Floor
			≤ 21 (cable)	-	EI 90	-
	Cables Cable bui Cable sur	ndles oport structures	≤ 80 (cable)	PYRO-SAFE® DG-CR 1.5 fire protection wrap	EI 90	
			≤ 150 (cable bundles)/ ≤ 21 (cables)	PYRO-SAFE <sup>®</sup> DG-CR 1.5 fire protection wrap	EI 120	-
	EIC	Single	≤ 32 / 21	PYRO-SAFE <sup>®</sup> DG-CR 1.5 fire protection wrap	EI 120	-
	EIC	Bundle	≤ 100 / 32 / 21	PYRO-SAFE® DG-CR 1.5 fire protection wrap	EI 120	-

# PYRO-SAFE® Novasit BM 240

Particularly high fire protection requirements can be satisfied with PYRO-SAFE® Novasit BM 240, which prevents flame penetration and temperature increases at electrical installations for a period of four hours.



## Penetration of Electrical Installations

Fire Resistance Class: El 240 acc. to EN-13501-2

#### System Data

Certificate of usability	ETA-16/0132	
	Solid wall	Floor
Component thickness	≥ 240	≥ 200
Penetration seal thickness	≥ 240	≥ 240
Penetration seal size	600 x 600	600 x 600

All measurements in mm

## Penetration of Electrical Installations

Media	lines	Diameter (max.)	Measure	Fire resistance Wall	class (max.) Floor
	Cables	≤ 80 (cable)	PYRO-SAFE® DG-CR 1.5 fire protection wrap	EI 240	EI 240
	Cable bundles Cable support structures	≤ 100 (cable bundles)/ ≤ 21 (cables)	PYRO-SAFE <sup>®</sup> DG-CR 1.5 fire protection wrap	EI 240	EI 240

# PYRO-SAFE® NOVASIT BM

PYRO-SAFE<sup>®</sup> NOVASIT BM is mixed with water, and is ready to apply immediately – either manually or with a pump. Thanks to the high adhesive force, it is possible to forego shuttering in the majority of application cases.

## **Product Data**

Reaction to Fire: A1 acc. to EN 13501-1



#### **Product Features**

Colour	cement grey	
Bulk density (fresh mortar)	1,200 ± 100 kg/m <sup>3</sup>	
Dry bulk density	≥ 900 kg/m <sup>3</sup>	
Compressive strength	M 2.5	
Application temperature	≥ +5 °C	
Processing time	approx. 2 - 3 hours	
Final strength	after approx. 28 days	
Usage category	Type Z <sub>2</sub> According to EOTA TR024	

	Cool and dry. Can be stored unopened for at least 12 months if stored properly.
Safety information	Please note our safety data sheet.
Declaration of performance (DOP) no.	01161000-NOVASIT-BM

#### Yield

Dry mortar	6 - 7 I water + 20 kg
Ready-to-use wet mortar	≈ 20 I
Volume after hardening	≈ 20 I

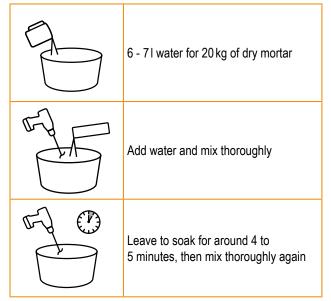
#### **Delivery and Packaging**

Bag mar 20 kg 01101000	Art. no.	Bag with 20 kg	01161030
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# **Processing Steps**

The step-by-step processing of PYRO-SAFE® NOVASIT BM is illustrated in the following.

## Manual Processing



## Pump Processing

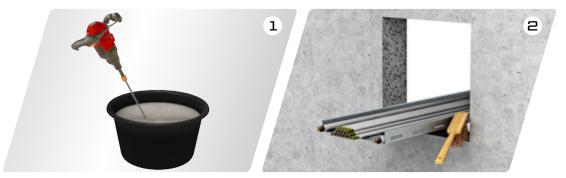
## **Discontinuous pump**

Prepare the machine and moisten hoses	Prepare the machine and moisten hoses
6 - 7 I water for 20 kg of dry mortar	Add water bed first – approx. two fingers wide above the rotor head
<ul> <li>Add material at mixing site</li> <li>Mix well for 4 to 5 minutes</li> </ul>	Add material – allow to trickle in slowly at first
<ul> <li>Start pumping</li> <li>Allow residual water to drain and check viscosity (mix again if necessary)</li> </ul>	Control the water flow – start: approx. 300 l/h, reduce to around 200 l/h

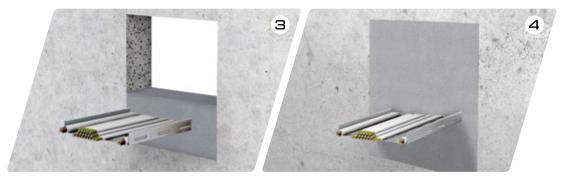
Continuous pump

# **Installation Steps**

The step-by-step installation of PYRO-SAFE® NOVASIT BM is illustrated in the following, based on use with solid walls.



- 1. Mix the fire protection compound as directed on the packaging.
- 2. Clean and pre-moisten the inside surface of the structural opening to be sealed.



- 3. Pack the fire protection compound tightly into the opening without leaving any voids.
- 4. Allow the mortar to set for at least 10 minutes. Then smooth the surface with a trowel, and mortar-seal shrinkage cracks (if any).



# **Further Requirements**

In addition to the high requirements for passive structural fire protection, our products also fulfil a large number of other requirements, such as resistance to ageing and splash water. PYRO-SAFE® NOVASIT BM does not cause corrosion on reinforcing bars in concrete, is neutral when used with PVC cables, is fabric hygiene-neutral, and exhibits outstanding adhesion to steel, concrete and masonry.

# Your Benefits

## **Comprehensive Application Solutions**

- ✓ Classified mineral fibre-free penetration seals up to EI 240 according to EN 13501-2
- ✓ Versions with just 100 mm seal thickness for use with plasterboard walls
- Extensive scope of applications for a wide variety of media lines with a broad spectrum of diameters and insulation types
- No need to trim and adjust the mineral-fibre boards the fire protection compound simply fits around the existing lines

## Proven in Practice Throughout the World

- ✓ In successful use globally for over 30 years
- ✓ Use in building construction residential/office buildings, hospitals, department stores, airports
- Proven in industrial buildings production facilities, heavy industry, power stations and sub-stations, nuclear facilities

## **High-Quality Fire Protection Products**

- ✓ Fire protection products Made in Germany solvent and halogen free
- Easy to apply thanks to the extremely high adhesive force and strength of the mortar, it is possible to forego shuttering in the majority of cases
- ✓ PYRO-SAFE<sup>®</sup> NOVASIT BM does not cause corrosion on reinforcing bars in concrete, is neutral when used with PVC cables, and is fabric hygiene-neutral



Protect your values.

## svt Products GmbH

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