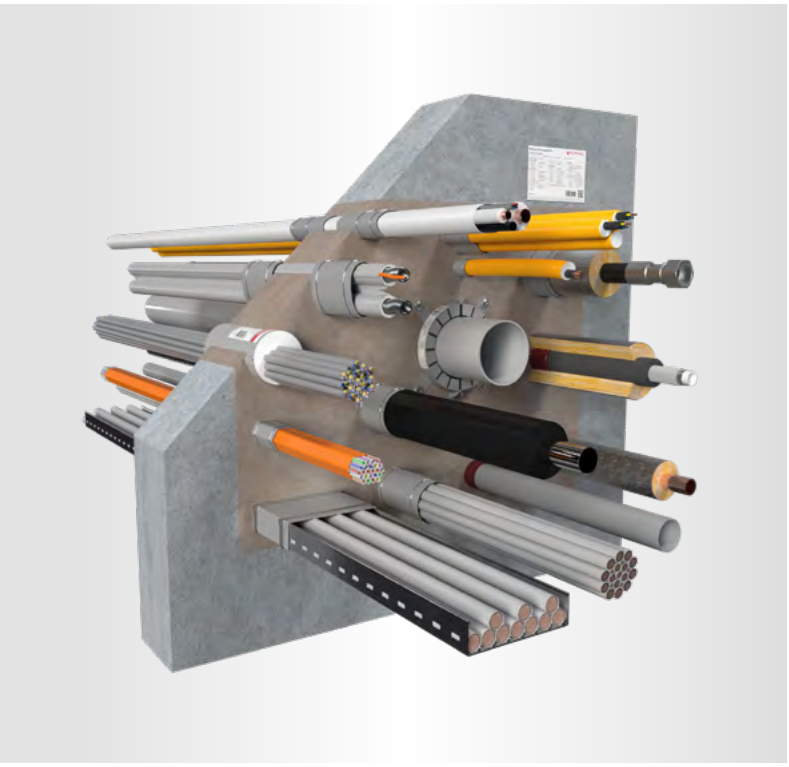
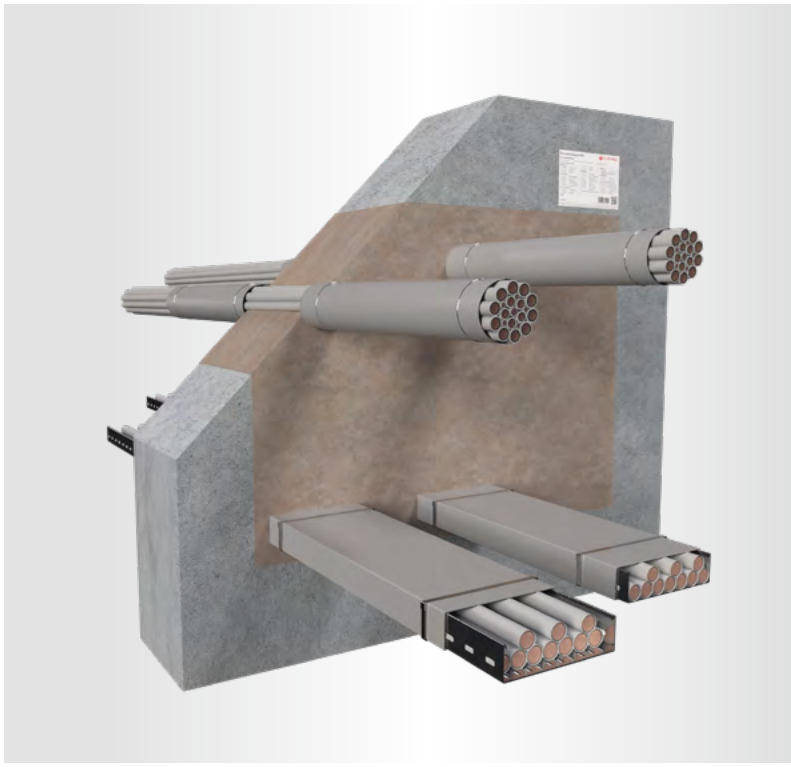
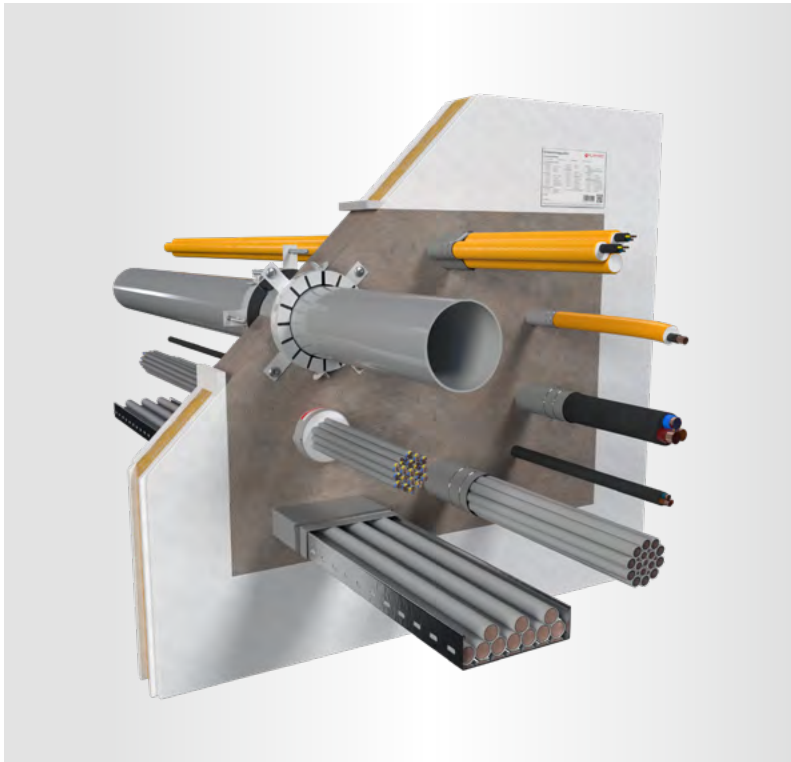
EU

System Novasit BM
Penetration Sealing Systems

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







FLAMRO® – the svt quality brand for preventive structural fire protection

The svt Group of Companies is recognised worldwide as a premier manufacturer and supplier of preventive fire protection solutions. As experts in passive structural fire protection, Flamro has been on the market for 30 years and has been part of the svt Group since 2018. FLAMRO® is now establishing itself internationally as the quality brand for the construction sector.

Together, svt and Flamro ensure increased safety in case of fire and boast Europe's largest and most diversified portfolio of state-of-the-art fire protection products and applications. Flamro's various types of cable and pipe penetration seals, cable ducts with special fitting pieces as well as cable bandages and coatings reliably ensure continuous, uninterrupted building and plant safety in case of fire – not only in Germany, but worldwide.

Made in Germany – with international certifications

Limiting property damage, preventing operational failures, avoiding environmental damage, and – above all – protecting human lives, health, and property; these are our goals, which can only be achieved with uncompromising quality. At Flamro, we manufacture all of our products in-house and adapt them to various international standards. This includes, for example, solutions certified according to UL 1479/ASTM E814, UL 2079/ASTM E1966, FM 3971, and EN 1366.

The high standards of our FLAMRO® products and systems are achieved through meticulous preliminary testing at our own fire testing facilities in Germany and recognised certification from renowned and accredited testing laboratories. In short: with Flamro, you can trust in "Made in Germany" quality.

Increased safety – through our own research and development

As part of the formidable svt Group of Companies, Flamro stands for innovation. Based on the latest findings of current research, all FLAMRO® products and systems do not only undergo rigorous fire protection tests, but are also constantly further developed. Besides safety, a diverse product range and practical user-friendliness also play an important role.

At Flamro, research and development therefore always go hand in hand in a forward-looking direction. This is why Flamro is now one of the world's major manufacturers in the field of passive structural fire protection. We can offer you both certified standard products and customised fire protection solutions.

With Flamro, you are always on the safe side.

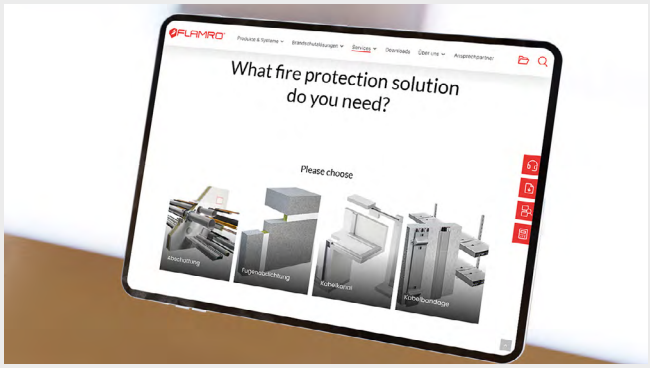
Our Services for you

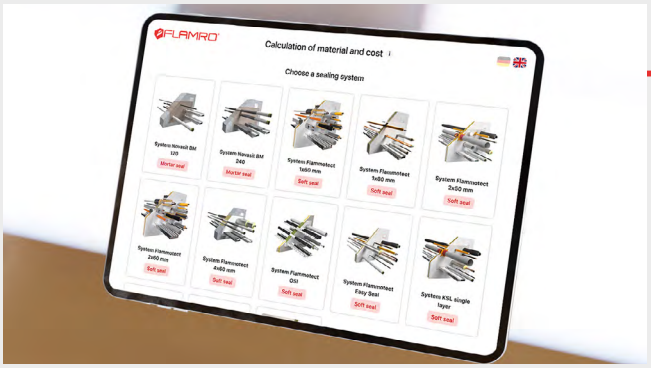
FLAMRO® is the svt Group's quality brand for products and applications for passive structural fire protection. We offer customised solutions for penetration sealing, cable ducts, cable bandages and coatings as well as practical training for you and your employees. Using our know-how, we will assist you with any questions or issues you may have regarding preventive structural fire protection.

FLAMRO® Product Guide

In just a few clicks, you will quickly find the best passive fire protection solution for your construction project.

The FLAMRO® Product Guide is available at:
flamro.com/eu/services/product-guide





FLAMRO® Calculator

Provide just a few details to find out what material quantities you need to install a FLAMRO® penetration sealing system.

The FLAMRO® Material & Cost Calculator is available at:
calc.flamro.com

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 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 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

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 NOVASIT BM, firmly attesting to its outstanding performance.

Highlights at a glance

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
- NOVASIT BM does not cause corrosion on reinforcing bars in concrete, is neutral when used with PVC cables, and is fabric hygiene-neutral

System Novasit BM

Fire resistance class: Up to EI 120 acc. to EN-13501-2

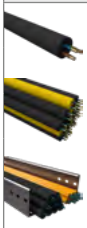
Most comprehensive penetration seal made from fire protection compound, with a maximum fire resistance class of EI 120 for sealing large openings in solid walls and floors. Suitable for complex penetrations, which can be consolidated through a common opening.

System data

Certificate of usability		ETA-22/0051
Component thickness	Solid wall	≥ 150
	Floor	≥ 150
Penetration seal thick-ness	Solid wall	≥ 150
	Floor	≥ 150
Penetration seal size	Solid wall	1200 × 2000
	Floor	1200 × 2000

All measurements in mm

Penetration of electrical installations

Media lines			Diameter (max.)	Measure	Fire resistance class (max.)	
					Wall	Floor
	Cable Cable bundles Cable trays		≤ 32 (Cable)	-	EI 120	EI 120
			≤ 60 (Cable bundles)	-	EI 120	EI 120
			≤ 80 (Cable)	Fire protection wrap	EI 120	EI 120
			≤ 100 (Cable bundles)/ ≤ 21 (Cable)	Fire protection wrap		
	EIC	Single	≤ 63	Fire protection wrap	EI 120 U/U	EI 90 U/U
			≤ 100	Fire protection wrap + Protective insulation		
	EIC	Bundle	≤ 100	Fire protection wrap		
	speedpipes		max. 24 pcs., Pipe outer ≤ 7 max. 7 pcs., Pipe outer ≤ 10 max. 5 pcs., Pipe outer ≤ 12	Fire protection wrap	EI 120 U/U	EI 120 U/U

All measurements in mm

Penetration of combustible/non-combustible pipes

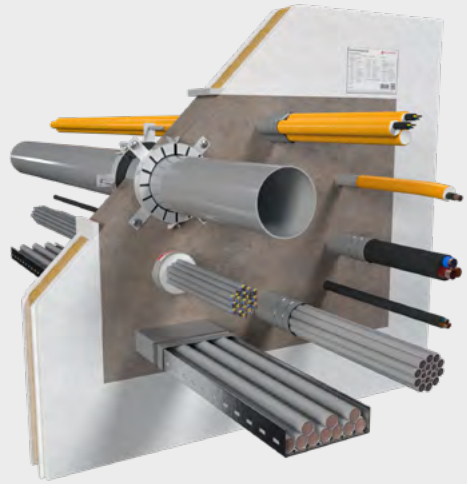
Media lines		Diameter (max.)	Measure	Fire resistance class (max.)	
				Wall	Floor
	Combustible pipes	≤ 110	Fire protection wrap DG-CR BS	EI 120 U/U	EI 120 U/U
		≤ 160	Fire protection wrap DG-CR BS	EI 120 U/C	EI 120 U/C
		≤ 160	Fire protection collar	EI 120 U/U	EI 120 U/U
	Multilayer composite pipes	≤ 63	Fire protection wrap or Protective insulation	EI 120 U/C	EI 120 U/C
	Non-combustible pipes with lamella mat mineral fibre insulation	≤ 88.9 (Copper)	–	EI 120 C/U	EI 120 C/U
		≤ 168.3 (Steel, stainless steel, cast iron)	–	EI 120 C/U	EI 120 C/U
		≤ 323.9 (Steel, stainless steel, cast iron)	Protective insulation	EI 120 C/U	EI 120 C/U
	Non-combustible pipes with mineral fibre insulation	≤ 108 (Copper)	–	EI 120 C/U	EI 120 C/U
		≤ 168.3 (Steel, stainless steel, cast iron)	–	EI 120 C/U	EI 120 C/U
		≤ 219.1 (Steel, stainless steel, cast iron)	Protective insulation	EI 120 C/U	EI 120 C/U
		≤ 323.9 (Steel, stainless steel, cast iron)	Protective insulation	EI 120 C/U	EI 90 C/U
	Non-combustible pipes with with FEF insulation	≤ 54 (Copper)	Fire protection wrap	EI 120 C/U	EI 120 C/U
		≤ 76 (Copper)	Fire protection wrap	–	EI 120 C/U
		≤ 108 (Copper)	Fire protection wrap + Protective insulation	EI 120 C/U	EI 120 C/U
		≤ 168.3 (Steel, stainless steel, cast iron)	Fire protection wrap + Protective insulation	EI 120 C/U	EI 120 C/U
	Non-combustible pipes with with FEF insulation „Armaflex Protect“	≤ 88.9 (Copper)	–	EI 120 C/U	EI 120 C/U
		≤ 108 (Copper)	Protective insulation	EI 120 C/U	EI 120 C/U
		≤ 170 (Steel, stainless steel, cast iron)	Protective insulation	EI 90 C/U	EI 90 C/U
	HVAC split line combinations	✓	Fire protection wrap	EI 120	EI 90
	Double solarpipes NanoSun[2]	DN 25	Fire protection wrap	EI 120 C/U	EI 120 C/U
	Hydraulic hoses	≤ 55.9	Fire protection wrap + Protective insulation	EI 120	EI 120

All measurements in mm

System Novasit BM – for plasterboard walls

Fire resistance class: Up to EI 120 acc. to EN-13501-2

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.



System data

Certificate of usability	ETA-22/0051
Component thickness	≥ 100
Penetration seal thickness	≥ 100
Penetration seal size	550 × 600

All measurements in mm

Penetration of electrical installations

Media lines			**Diameter (max.)**	**Measure**	**Fire resistance class (max.)**
					Wall
	Cable Cable bundles Cable trays		≤ 21 (Cables)	–	EI 90
			≤ 80 (Cables)	Fire protection wrap	EI 90
			≤ 150 (Cable bundles)/ ≤ 21 (Cables)	Fire protection wrap	EI 120
	EIC	Single	≤ 32 / 21	Fire protection wrap	EI 120
	EIC	Bundle	≤ 100 / 32 / 21	Fire protection wrap	EI 120

All measurements in mm

System Novasit BM 240

Fire resistance class: EI 240 acc. to EN-13501-2

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

System data

Certificate of usability		ETA-22/0051
Component thickness	Solid wall	≥ 240
	Floor	≥ 200
Penetration seal thick-ness	Solid wall	≥ 240
	Floor	≥ 240
Penetration seal size	Solid wall	600 × 600
	Floor	600 × 600

All measurements in mm

Penetration of electrical installations

Media lines		**Diameter (max.)**	**Measure**	**Fire resistance class (max.)**	
				Wall	**Floor**
	Cable Cable bundles Cable trays	≤ 80 (Cable)	Fire protection wrap	EI 240	EI 240
		≤ 150 (Cable bundles)/ ≤ 21 (Cable)	Fire protection wrap	EI 240	EI 240

All measurements in mm

NOVASIT BM

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

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 features

Colour	cement grey	
Bulk density (fresh mortar)	1200 ± 100 kg/m³	
Dry bulk density	≥ 900 kg/m³	
Compressive strength	M 2.5	
Application temperature	≥ +5 °C	
Processing time	approx. 2 - 3 hours	
Final strength	after approx. 28 days	
Usage category	Typ Z_2	According to EOTA TR024

Storage	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 l water + 20 kg
Ready-to-use wet mortar	≈ 20 l
Volume after hardening	≈ 20 l

Delivery and packaging

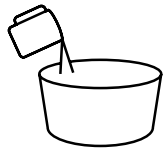
Novasit BM		
Packaging	Sack	Pail
Container size	20 kg	10 kg
Art. no.	01161000	01161010

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. 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.

Processing steps

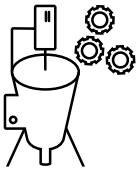
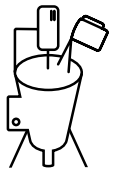
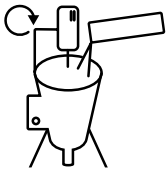
Manual processing

	6 - 7 l water for 20 kg of dry mortar
	Add water and mix thoroughly

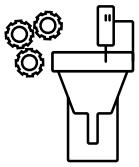
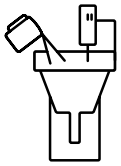
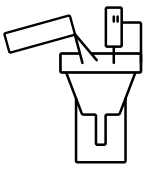
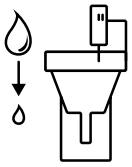
	Leave to soak for around 4 to 5 minutes, then mix thoroughly again

Pump processing

Discontinuous pump

	Prepare the machine and moisten hoses
	6 - 7 l water for 20 kg of dry mortar
	• Add material at mixing site • Mix well for 4 to 5 minutes
	• Start pumping • Allow residual water to drain and check viscosity (mix again if necessary)

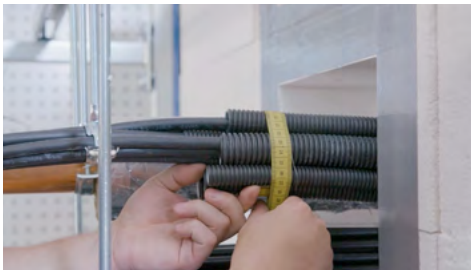
Continuous pump

	Prepare the machine and moisten hoses
	Add water bed first – approx. two fingers wide above the rotor head
	Add material – allow to trickle in slowly at first
	Control the water flow – start: approx. 300 l/h, reduce to around 200 l/h

Installation steps

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

Clean the reveal of the structural opening and installations and mask them with adhesive tape.



Measure the circumference for attaching the bandage.

Cut two strips of bandage to size so that they can be wrapped in two layers.

Apply two layers of bandage and fix them with an overhang of 75 mm.

Mix the coating material, pre-wet the reveal, insert cables into the sealing area with the mortar, and smooth the surface.

Remove the adhesive tape, clean the work area, and label the seal.

Installation video

Watch the full installation **video** for the System Novasit BM and other fire protection systems.

We welcome your inquiries!

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