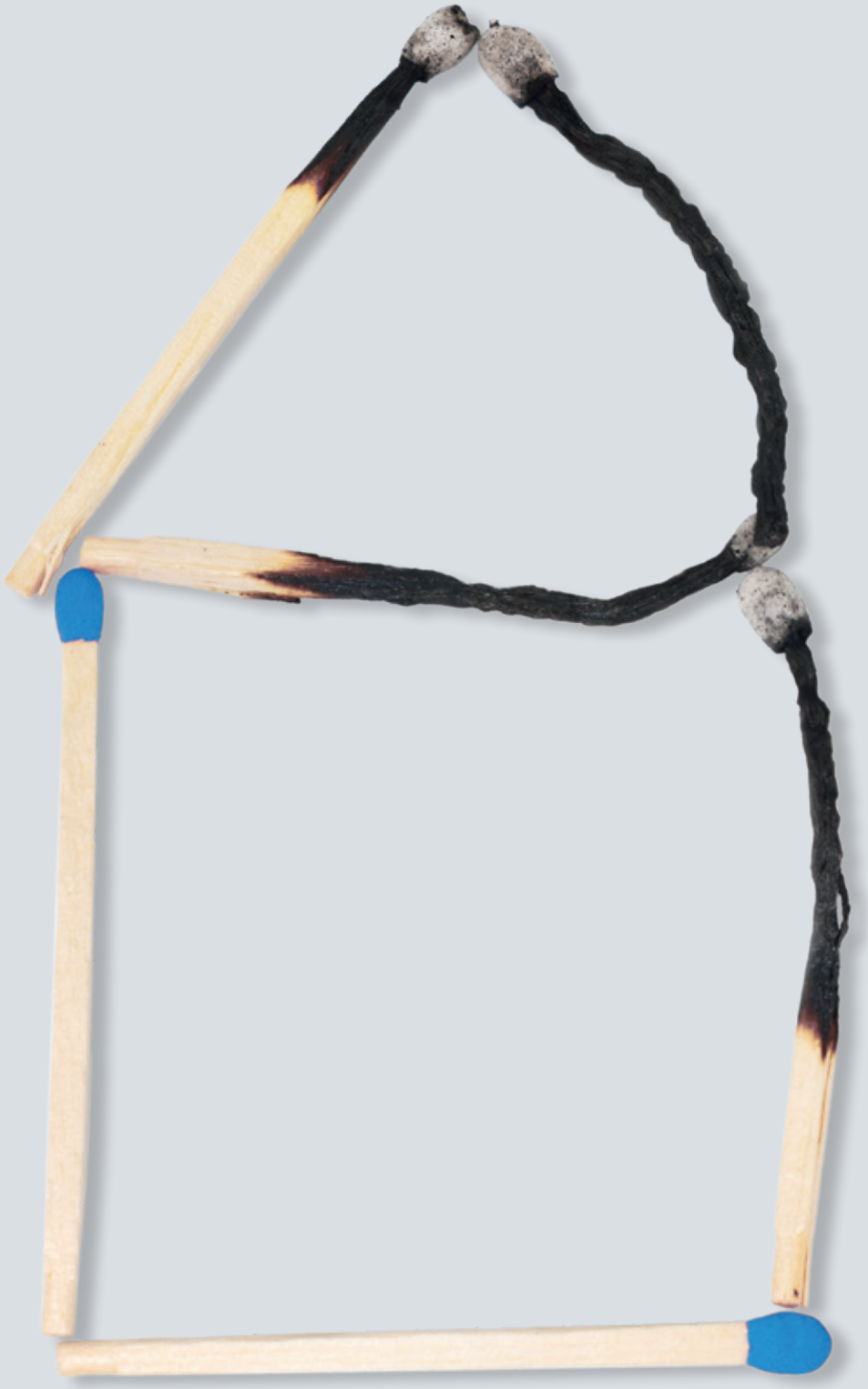
40 YEARS PRODUCTION



PATENTED AND HIGH-PERFORMING

ISO^{F}-FIRE PROTECTION SYSTEM

ISO CHEMIE


50°
150
216
OKFF
+5.75
OKFF DG
+2.98
+2.70
OKFF EG
+15
-15

THE ESSENTIAL FOUNDATION FOR BUILDING SAFETY

FIRE PROTECTION FOR JOINTS AND CABLE PENETRATIONS

Efficient fire protection is an important and central step for enhancing building safety. Appropriate fire protection measures need to be considered right from the start, when planning the building's use. A structure needs to be divided into suitable fire zones if it is to conform to modern safety requirements. Approved materials need to be used for sealing joints, cable and pipe penetrations.

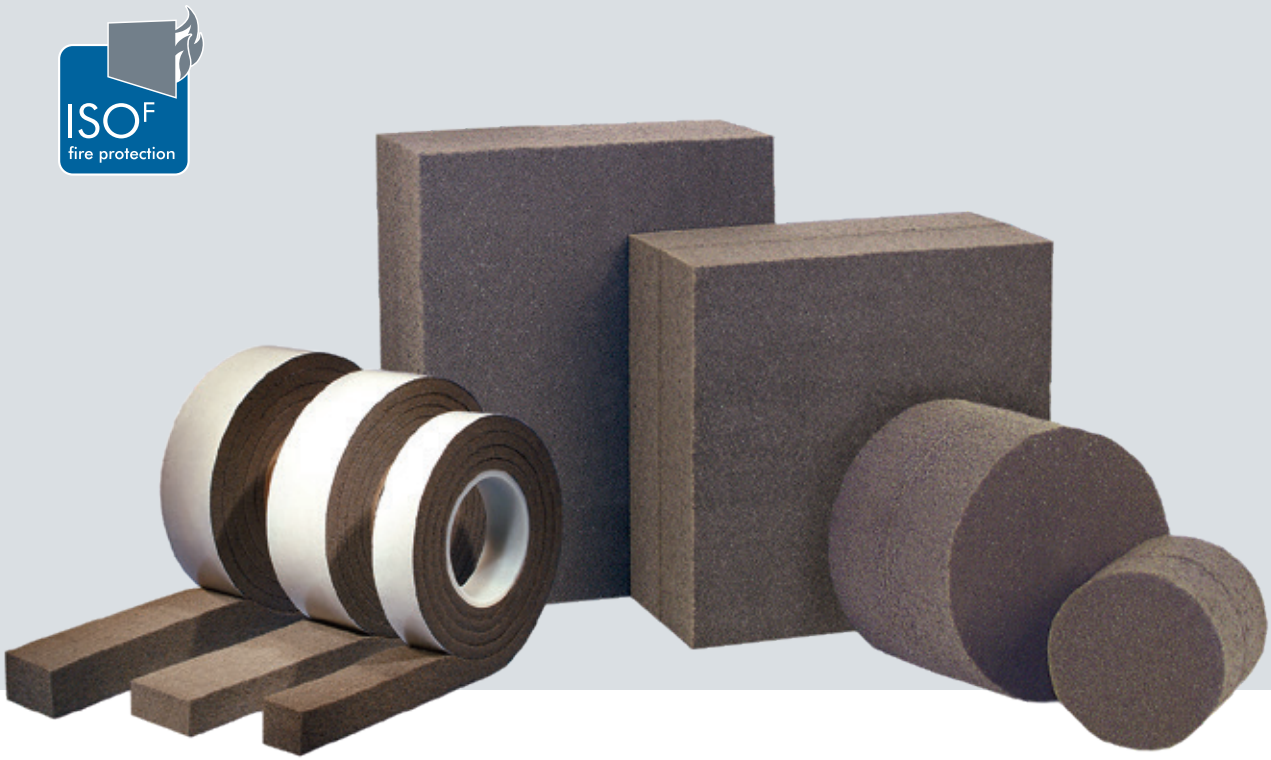
Fire resistance, installation safety and durability are some of the factors that determine whether building authority approval will be granted. The products from our ISO^{F}-FIRE PROTECTION SYSTEM have building authority approval and provide a reliable and cost-efficient means of sealing joints and openings, both in walls and ceilings, which meet fire protection requirements.

ISO^{F} fire protection

THE ISOF-FIRE PROTECTION SYSTEM

PATENTED FIRE PROTECTION FOR JOINTS AND CABLE ENTRIES

Our ISOF-FIRE PROTECTION SYSTEM products have building authority approval and conform to the latest regulations and standards for joints and cable entries. The ISOF-FIRE PROTECTION SYSTEM comprises a sealing tape along with round and rectangular foam forms. All the system products are based on fire resistant, impregnated PUR foam. This guarantees that fire and smoke will be prevented from spreading for as long as possible in the event of a fire and that fire zones will remain separate and enclosed from one another. All of the fire protection products from the ISOF-FIRE PROTECTION SYSTEM are subject to ongoing monitoring by external inspection bodies.

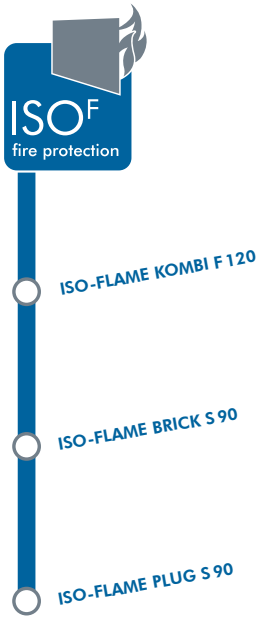


SEALING TAPE AS A FIRE STOP FOR EXPANSION AND MOVEMENT JOINTS

ISO-FLAME KOMBI F 120 sealing tape is the product to choose as a fire stop for expansion and movement joints in components used to create fire zones. The outstanding properties of this product will prevent the joint burning through for at least 30 or 120 minutes. The fire protection certificates conform to both the German classifications F 30 and F 120 and the European classifications EI 30 and EI 120.

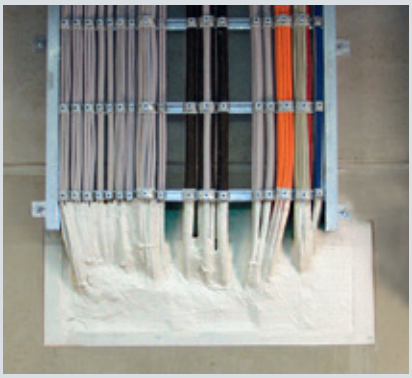
MOULDED FORMS AS DUST FREE AND FIBRE FREE FIRE STOPS IN SENSITIVE ROOMS

ISO-FLAME PLUG S 90 increases building safety in the vicinity of fire walls and ceilings. It is also used to protect circular openings in concrete, reinforced concrete, cellular concrete, brick-work or lighter partitioning walls. Like ISO-FLAME PLUG S 90, ISO-FLAME BRICK S 90 is suitable for use in fire walls and ceilings, but this product is fitted into irregular and rectangular openings. Both products are totally free from dust and fibre, making them particularly suitable for use in dirt sensitive rooms in hospitals, laboratories or server rooms, etc.

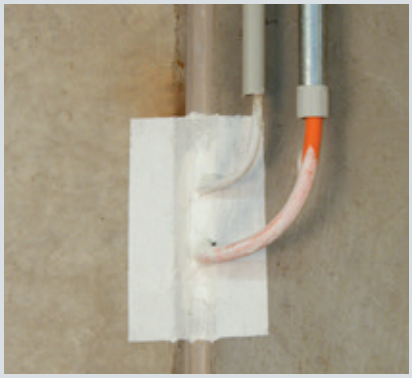


CORRECT FIRE PROTECTION SEALING OF FIRE WALLS AND CEILINGS

Faulty cable fire stop increases the risk in the event of fire



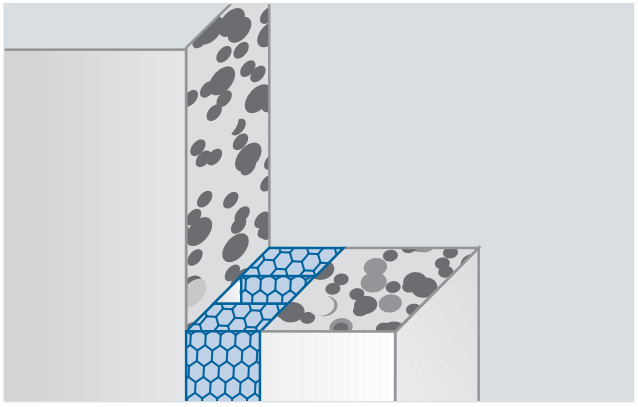
Correct fire stop with ISO-FLAME BRICK S 90



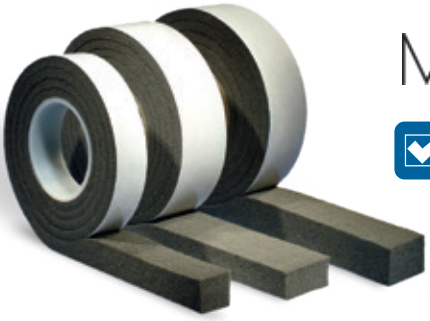
Correct fire stop with ISO-FLAME PLUG S 90

OUR SYSTEM PRODUCTS
FOR FIRE PROTECTION

ISO-FLAME KOMBI F 120
FIRE STOP FOR MOVEMENT JOINTS



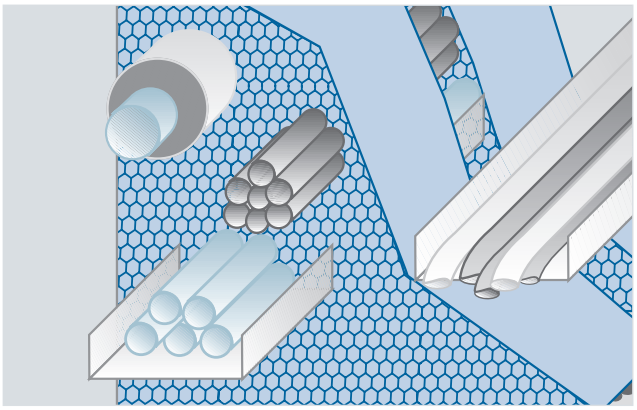
ISO-FLAME KOMBI F 120 is a PUR-sealing tape impregnated with a special highly flame resistant impregnation which withstands fire and smoke for at least 30 or 120 minutes in the event of a fire. It therefore fulfils the most stringent fire protection requirements, making it excellent as a fire-stop for expansion and movement joints in components used to create fire zones. No pre-treatment of the joint or additional sealing with kitt at the joint faces is needed. ISO-FLAME KOMBI F 120 can be used in all areas of construction and building types.



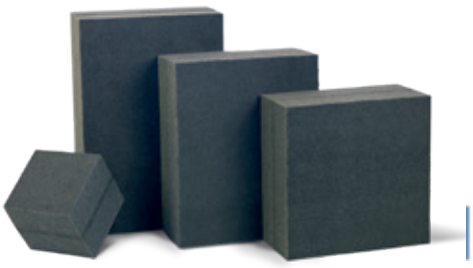
QUALITY CHARACTERISTICS

- meets the requirements for 120 minutes at room connections and thermal insulation (F 120 and EI 120)
- fire resistance period of F 30, F 120, EI 30 and EI 120 certified by iBMB / MPA Braunschweig and MPA Stuttgart
- approved, tested coverage with ISO-BLOCO 300 and 600 as well as ISO-TOP FACADE SEAL
- permanently elastic, with a high long term movement capacity
- for joint dimensions from 4 mm up to 40 mm
- sound and thermal insulating
- halogen, fibre and solvent-free
- no pre-treatment of the joint and no additional sealing to the visible joint surface with fire protection compound agent required

ISO-FLAME BRICK S 90
CABLE / PIPE FIRE STOP



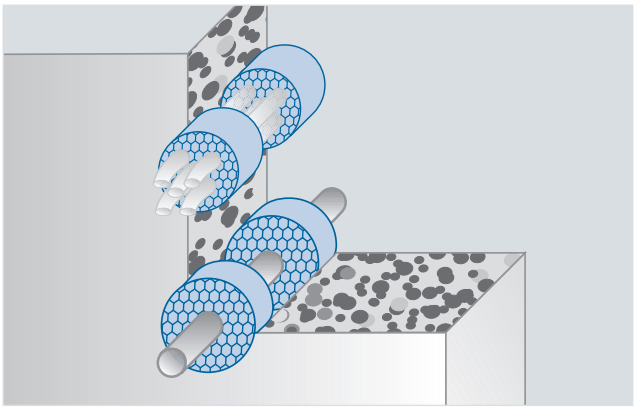
ISO-FLAME BRICK S 90 is a fire resistant, impregnated PUR high resilient foam form used as a fire-protection of single cables, cable bundles and pipes (service fire stops). It is used in rectangular and irregular openings in fire walls and ceilings and in accordance to DIN 4102 part 9 for F classes S 30, S 60 and S 90. Its maximum fire resistance durability is 90 minutes. ISO-FLAME BRICK S 90 is totally free from fibres and dust, making it particularly suitable for use in dirt sensitive rooms. ISO-FLAME BRICK S 90 can be installed quickly and cleanly without the need for special tools. The fitting of single cables. cable bundles, pipes and cable looms is simply done by cutting.



QUALITY CHARACTERISTICS

- meets the requirements of DIN 4102 part 9 for fire resistance classes S 30, S 60 and S 90
- quick and clean application without special tools
- no preparation of the wall or ceiling opening
- easy fitting of cables (soft foam fire barrier)
- no cracking due to permanent elasticity with high capacity to absorb constant movements
- totally free from dust and fibres, impermeable to flue gases
- flexible application (temporary / permanent fire protection)
- free from halogens and solvents

ISO-FLAME PLUG S 90
CABLE / PIPE FIRE STOP



ISO-FLAME PLUG S 90 increases building safety in the vicinity of fire walls and ceilings. It also acts as a fire protection for single cables and cable bundles on circular openings in concrete, reinforced concrete, cellular concrete, brick-work or lighter partitioning walls. The ready to use foam form is made from fire resistant, impregnated PUR foam and is approved for fire resistance classes S 30, S 60 and S 90. Being totally free from fibres and dust it i s particularly suitable for use in dirt sensitive rooms. ISO-FLAME BRICK S 90 can be installed quickly and cleanly without the need for special tools and the foam is simply cut to accommodate the various cables.

QUALITY CHARACTERISTICS

- meets the requirements of DIN 4102 part 9 for fire resistance classes S 30, S 60 and S 90
- quick and clean application without special tools
- no preparation of the wall or ceiling opening
- easy fitting of cables (soft foam fire barrier)
- no cracking due to permanent elasticity with high capacity to absorb constant movements
- totally free from dust and fibres, impermeable to flue gases
- flexible application (temporary / permanent fire protection)
- free from halogens and solvents

ACCESSORIES
ISO-FLAME KITT & ISO-FLAME SET

ISO-FLAME KITT is an ablative, trowel-on white fire protection compound (ABZ Z-19.11-1571). The cut surfaces of the foam form should be coated with ISO-FLAME KITT when ISO-FLAME PLUG S 90 and BRICK S 90 are used. In the case of ceiling openings, both visible fire stop surfaces should be sealed using ISO-FLAME KITT.

ISO-FLAME SET consists of a building authority approval (ABZ) with certificate of conformity or manufacturer's certificate, plus an implementation notice.

TECHNICAL REQUIREMENTS FOR THE **FIRE STOP**

The fire resistance period of the fire stop is defined by statutory requirements and standards, and compliance with this rating must be demonstrated by appropriate test certificates for the fire stop materials. We distinguish between German national (F and S classes) and European classifications (R or EI classes) which precisely define the performance requirements. The number indicated by the classification stands for the minimum fire resistance period in minutes.

FIRE RESISTANCE CLASSES TO DIN 4102

Fire resistance classes to DIN 4102 part 2	Fire resistance period in minutes	Fire resistance classes for cable fire-stops to DIN 4102 part 9	Fire resistance period in minutes
F 30	≥ 30	S 30	≥ 30
F 60	≥ 60	S 60	≥ 60
F 90	≥ 90	S 90	≥ 90
F 120	≥ 120	S 120	≥ 120
F 180	≥ 180	S 180	≥ 180

RATINGS FOR ISO^{F}-FIRE PROTECTION SYSTEM ACCORDING TO DIN 4102 / DIN EN 13501-2 & BS EN 13501-2

Fire resistance class	ISO-FLAME KOMBI F 120
F 30 / EI 30	ceiling / wall thickness ≥ 100 mm minimum installation depth ≥ 50 mm
F 120 / EI 120	ceiling / wall thickness ≥ 150 mm minimum installation depth ≥ 80 mm or ≥ 2 x 40 mm (joint width up to 20 mm) ≥ 100 mm or ≥ 2 x 50 mm

Fire resistance class S 90	ISO-FLAME BRICK S 90 (rectangular openings)	ISO-FLAME PLUG S 90 (circular openings)
Minimum thickness of the component	100 mm (wall), 150 mm (ceiling)	100 mm (wall), 150 mm (ceiling)
Minimum thickness of the fire stop	200 mm (wall), 200 mm (ceiling)	200 mm (wall), 200 mm (ceiling)
Maximum cable occupation	60 % (wall), 60 % (ceiling)	60 % (wall), 60 % (ceiling)

MOST STRINGENT REQUIREMENTS FOR THE FIRE-STOP

FOR JOINTS AND CABLE ENTRIES

Cable entries in fire walls and ceilings must be created using fire resistant products (F classes). These require a "building authority approval" from the German Institute for Building Technology DIBt in Berlin. A system test is required for cable fire-stops in fire walls and ceilings. A "building authority test certificate" is sufficient as proof for joint fire stops. All fire protection products are subject to constant monitoring by external materials testing bodies.

ISO-FLAME KOMBI F 120

- certificates from iBMB / MPA Braunschweig and MPA Stuttgart for the fire resistance period F 30, F 120, EI 30 and EI 120 (P-3436/5813-MPA BS, PB 2400/157/15) Rue – MPA BS and ETA-18/0378 EI 30)

ISO-FLAME BRICK S 90 AND PLUG S 90

- building authority approval trough DIBt Berlin, granted for fire resistance class S 90 (Z-19.15-1575)

BERLIN CENTRAL STATION

ISO-FLAME KOMBI F 120 FIRE PROTECTION TAPE

ISO-FLAME KOMBI F 120 was used as a fire stop for the fire protection joints and to create fire zones in the facade area and tunnels. The fire protection tape meets the stringent requirements for a reliable fire stop for expansion and movement joints used to create fire zones.

ADVANTAGES OF THE ISO^{F}-FIRE PROTECTION SYSTEM
AT A GLANCE

✔ **FIRE PROTECTION CONFORMING TO THE LATEST TECHNICAL STANDARDS**

Our products are tested in accordance with statutory requirements and standards. This guarantees that you, as the user, meet the latest technical standards.

✔ **EXTREMELY COST-EFFECTIVE**

Today, buildings have to be more cost-effective than ever before. A durable and reliable seal for fire protection joints and openings using the ISO^{F}-FIRE PROTECTION SYSTEM will make a long-lasting and financially effective contribution to increasing the safety of a building.

✔ **10-YEAR FUNCTIONAL WARRANTY***

We give you a 10 year performance guarantee* on our innovative products. This reduces your own risk and means you can be sure of installing a reliable fire protection solution for your customers.

* On the conditions of the manufacturer (available on request).

✔ **ONE-STOP SHOPPING FOR A SYSTEM SOLUTION**

The products from our ISO^{F}-FIRE PROTECTION SYSTEM offer you a complete solution from a single supplier. This saves time and increases safety as all the products in the system are coordinated with one another.

✔ **TESTED PRODUCT QUALITY**

Our ISO^{F}-FIRE PROTECTION SYSTEM is an all-round safe bet. We regularly commission independent institutes to check the quality of our system products.

✔ **ISO-CHEMIE SERVICE**

As a supplier of complete fire protection solutions for new-builds and renovation projects we offer architects, designers and contractors innovative system products combined with an extensive range of services. This makes your work easier and reduces your planning risk.

Use the blue technology.

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