

Saving Lives – Saving Assets

We offer our customers a reliable partnership in fire protection by providing quality products to protect and save lives.

To this end, Fire Protectors uses the expansive network of MBCC Group in research, development and digitization to continually improve processes.



A Wide Range of Fire Protection Solutions

Interdens® and Exterdens®

Graphite and phosphate fire protection technologies that deliver a three dimensional intumescent reaction with minimal pressure. Interdens® and Exterdens® are the preferred solutions for hardware applications including door fittings and hinges.

Wolmanit® Firestop and Wolmanit® Antiflamm

Innovative fire protection for wood and wood-based materials. Two different systems, fire protection impregnation and intumescent paint, effectively improve the fire protection properties of wood and wood-based materials. Wolmanit® Firestop and Wolmanit® Antiflamm are used to protect facades, wood paneling, exhibition construction as well as wooden surfaces in public transportation.

Flamastic® Customized Solutions

For challenging fields of application and safety in all areas. Fire Protectors develops individual application-specific solutions in the form of pastes, granules and molded parts based on intumescent as well as ablation technology. Flamastic® customized solutions are used for example in electromobility.



FIRE PROTECTORS

IS NOW PART OF **Sika**

www.fire-protectors.com

This information corresponds to the current state of our knowledge. It is intended to provide information about our products and their possible applications and therefore does not have the meaning of guaranteeing certain properties of the products or their suitability for a specific application and is not complete instructions for use. They also do not constitute a guarantee of quality and durability. Any existing industrial property rights of third be taken into account. The use and processing of our products are beyond our control and are the sole responsibility of the user. The user is not exempt from checking the suitability and application possibilities for the intended purpose. The following shall apply in addition General Terms and Conditions of Sale as amended from time to time shall apply.

For further information:

Wolman Wood and Fire Protection GmbH, Dr.-Wolman-Str. 31–33, 76547 Sinzheim, Germany
Phone +49 7221 800-0, Fax +49 7221 800-290, info@fire-protectors.com, www.fire-protectors.com

Palusol® and Palusol® SW

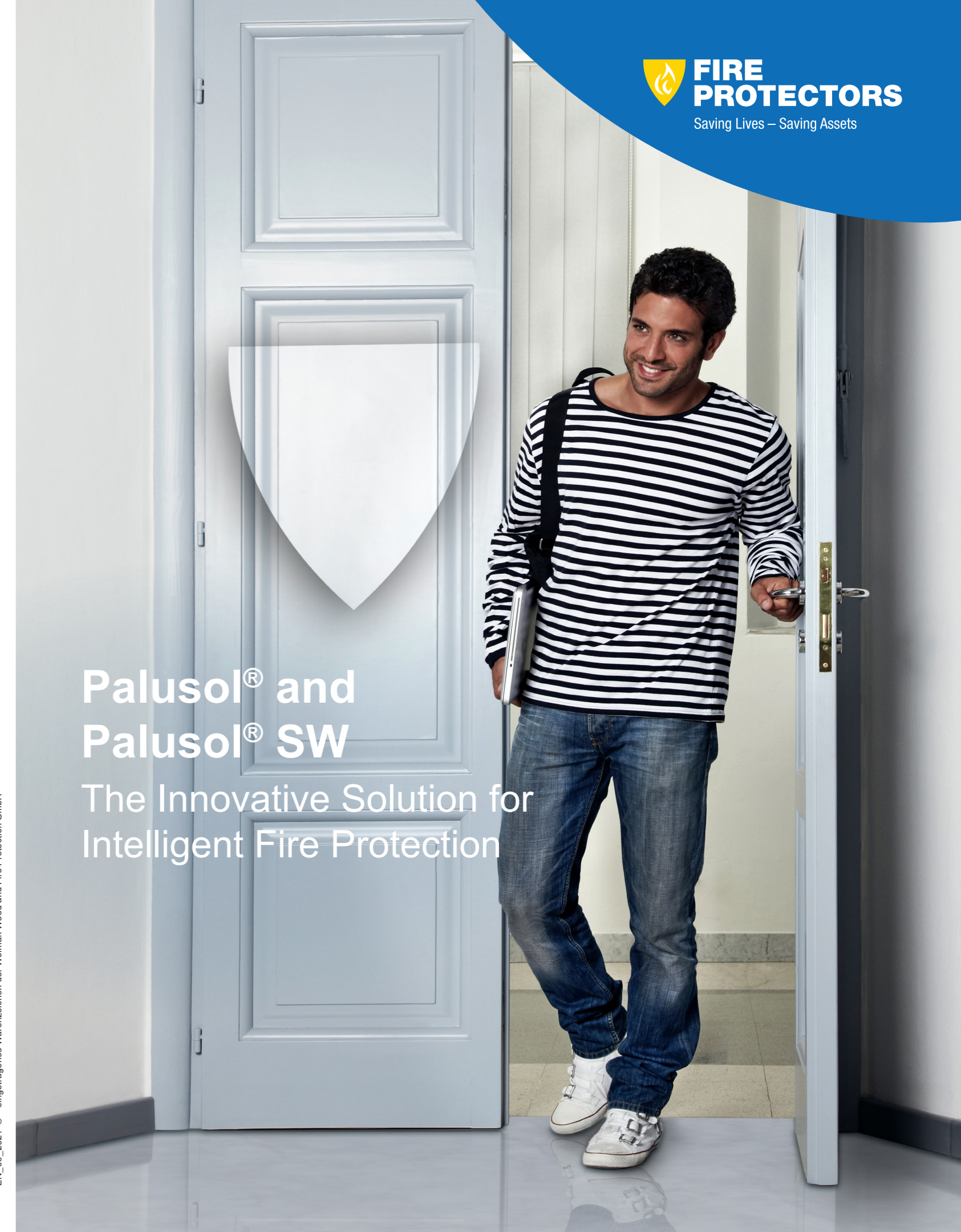
An innovative solution utilizing silicate based technology. Palusol® reacts at the early stages of a fire. This low response temperature combined with a cooling effect differentiates this product. Palusol® and Palusol® SW are most commonly used in the construction of fire doors, safes and ventilation grilles.

KBS® – Cable Fire Protection and Penetration Sealing

Proven structural fire protection for maximum safety. The fire protection systems include extensively tested, certified and approved cable fire protection coatings as well as a variety of cables, pipes and combination insulation systems. KBS® cable fire protection and sealing solutions are successfully used in numerous applications of structural fire protection.

Palusol® and Palusol® SW

The Innovative Solution for Intelligent Fire Protection



 **FIRE PROTECTORS**
Saving Lives – Saving Assets

Palusol® – Trusted and Proven for Over Fifty Years

As the inventor of silicate-based fire protection panels, Palusol® is the market leader in the field of intumescent silicate panels for structural fire protection. In addition to innovative solutions such as Palusol® sandwich products, we offer our customers under the umbrella brand Fire Protectors a wide range of additional services such as technical certificates and component testing.



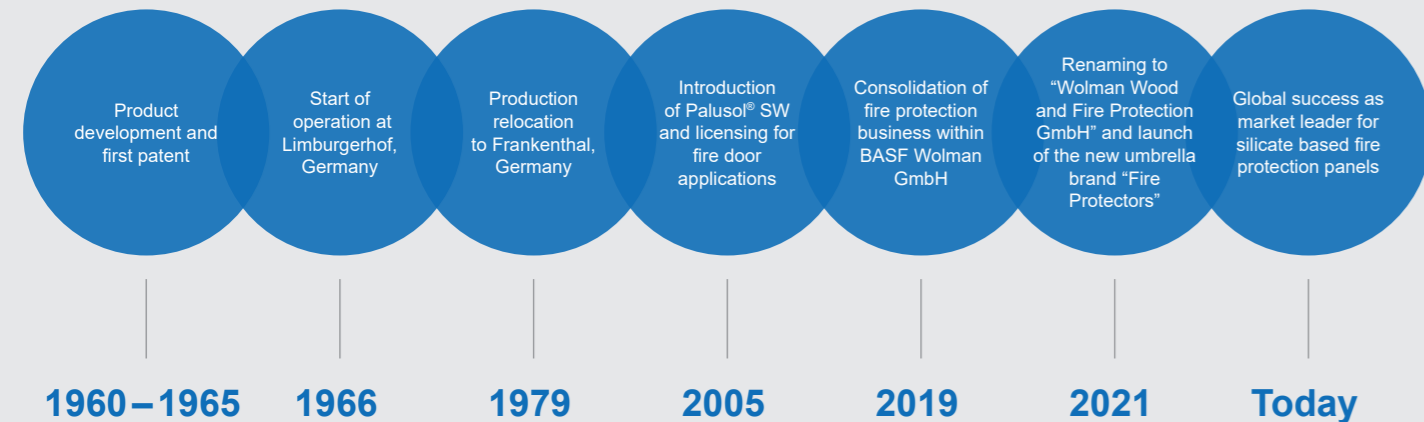
What is Palusol® and Palusol® SW?

Palusol® fire protection panels are classified as a non-combustible building material and are used in fire doors and glazing, as well as in fire stopping of pipes, cables and ventilation elements or even in safety cabinets. Palusol® SW is a prefabricated sandwich product made of Palusol® fire protection panels and high-density fiberboards. This construction ensures a torsionally rigid, fire-retardant panel for use in wooden fire doors.

How does it work?

In the event of a fire, the Palusol® silicate panel reacts and begins to intumesce at a low temperature of 100 °C. The non combustible, heat insulating and pressure resistant foam expands to seal off gaps and crevices preventing the spread of fire and smoke. Simultaneously, evaporating water is released from the foam creating a cooling effect.

Our history



The Innovative Choice for Intelligent Fire Protection

At a glance: Advantages of Palusol® and Palusol® SW

Trusted fire protection

- Compression-resistant, heat-insulating foam that increases to 9.5 times its original size
- Palusol® starts to expand at just 100 °C and develops a significant expansion pressure of up to 1.60 N/mm at 120 °C
- When heated, chemically bound water evaporates and provides an additional cooling effect
- Fire and smoke resistance for up to 120 minutes
- Palusol® is classified as "non-combustible" according to construction material class A2-s1,d0 pursuant to EN 13501-1

Long-term proven and innovative

- Use of natural and virtually unlimited raw materials (silicate)
- Durability tests on 40-year-old Palusol® fire protection panels confirm property profile remains unchanged
- Fire tests on 12-year-old fire protection doors showed that there was no reduction in fire protection effectiveness
- The high quality standards are maintained with regular internal and external monitoring
- Preconfigured fire protection door cores allow savings on cost and work-intensive process steps
- Continuous portfolio expansion of tested and listed fire protection assemblies

Fire Protectors: The right solution for every application

Scope of Application	Palusol®	Palusol SW®
Fire doors	Yes	Yes
Glazing	Yes	Yes
Ventilation elements	Yes	Yes
Fire stops for pipes and cables	Yes	Yes
Special applications e.g. in transportation	Yes	Yes
Core of wooden fire doors	Yes	Yes
Core of fire walls	Yes	Yes



Palusol® SW allows to manufacture individual fire doors of high architectural standard



Use of Palusol® in fire doors of commercial and public buildings

Quality Fire Protection Products: Monitored, Certified and Listed



Palusol® fire protection panels for use in "intumescent products for fire proofing and fire retardant applications" have a European Technical Assessment (ETA-15/0345)

and carry the CE label. In addition, the quality is ensured by external monitoring by Underwriters Laboratories (File Number: R10071).



Palusol® panels are specially developed for the manufacture of fire protection doors, frames and walls. Fire resistances ranging from 20 and 90 minutes can be achieved with various combinations of HDF panels and Palusol®. Palusol® SW products are listed in accordance with various testing and monitoring authorities in the USA and Canada:

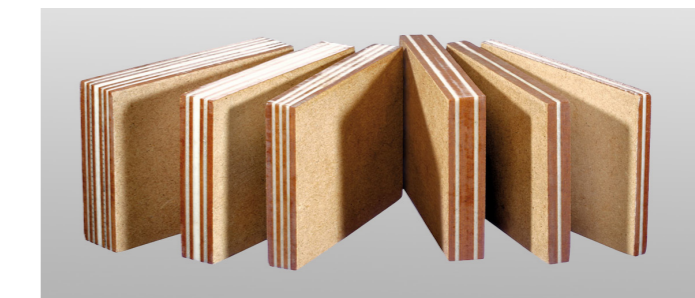
- ASTM (American Society for Testing and Materials)
- UL (Underwriters Laboratories)
- NFPA (National Fire Protection Association)
- CAN/ULC (Standards Council of Canada)

For Great Britain a Global Fire Assessment according to British Standard (BS) for panel framed doors for 30 minutes and 60 minutes.

Door manufacturers are provided with free access to the licenses of the listed door constructions. The detailed CAD drawings of the components can be found at these testing institutes:

- Intertek Testing Services
- Quality Auditing Institute
- Warringtonfire

The HDF panels used in SW constructions are sourced from sustainably managed forests and are labeled and certified with the FSC® logo.



Palusol® SW sandwich Panels



Palusol® after reaction with fire: heat-insulating and pressure-resistant foam