

# 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.

### 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.



IS NOW PART OF **Sika**

[www.fire-protectors.com](http://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, [info@fire-protectors.com](mailto:info@fire-protectors.com), [www.fire-protectors.com](http://www.fire-protectors.com)

## Interdens® and Exterdens® The Proven Protection in Case of Fire



# Interdens® and Exterdens® – Ensuring a High Fire Resistance Duration

The products Interdens® and Exterdens® are based on the phosphate and graphite technologies. In the event of a fire, they reliably start intumescing at temperatures of 150 °C. They form a fine-pored, insulating protective layer and are thus buying important time until the fire brigade arrives. As a result, they contribute not only to the protection of life and limb, but also help preserve the value of material assets.

We constantly adapt our product portfolio to the changing needs of the market, always in close cooperation with fire protection experts and our customers. To this end particularly ecological aspects are of paramount interest to our work.

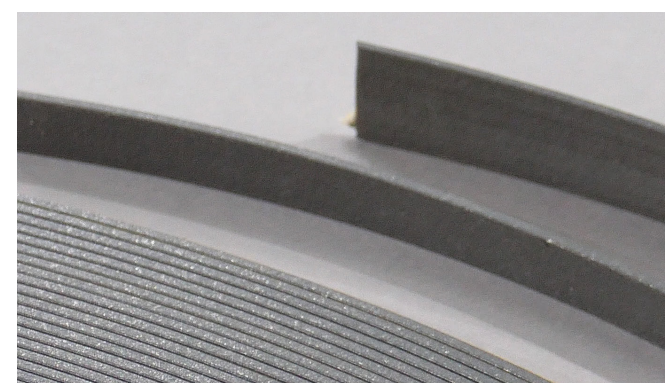
Interdens® and Exterdens® have been proven products for decades and are successfully used in the passive fire protection of structures and buildings. They are available as sheet and roll material in various colours and designs.



## Successful in Passive Fire Protection – Proven for Decades



Interdens® Type 36 protects with phosphate technology in interior environment



Exterdens® FB protects both indoor and outdoor areas with graphite technology

### Interdens®

Interdens® intumesces without pressure at a very early stage at 150 °C and forms a microporous heat-insulating foam in the event of fire. Due to the phosphate-based technology, a two-phase foaming process begins at 150 °C and is followed by a further surge at 300 °C. This results in very high intumescence factors of up to 95 times its original volume. Without pressure,

the foam spreads three-dimensionally into joints and crevices and prevents fire and smoke from spreading into other rooms. Our Interdens® products for "intumescent products for fire sealing and fire stopping purposes" have a European Technical Assessment (ETA-16/0811, ETA-16/0810, ETA-15/0590) and are CE marked.

### Exterdens®

Exterdens® intumesces with an inflation pressure of up to 10 bar at 200 °C and forms a microporous heat-insulating foam in the event of fire. With the aid of graphite technology and the resulting inflation pressure, Exterdens® can also be used in a concealed manner, for example under veneer, and also in areas exposed to moisture. In the event of fire, the foam

expands three-dimensionally and achieves foaming factors of up to 25 of its original volume, thus insulating and sealing joints and cavities against the flashover of fire and smoke. Our Exterdens® FB for "intumescent products for fire sealing and fire stopping purposes" has a European Technical Assessment (ETA-15/0591) and is CE marked.

### Advantages at a glance

#### Interdens®

**Intumescent action**  
Two-phase and three-dimensional intumescent action at 150 °C and 300 °C



**Intumescence factor**  
Fine-pored foam with reliable intumescence of up to 95 times the original thickness



**Cost Savings**  
Low board thickness of 0.6 – 2.0 mm enables the use of modern hardware



#### Exterdens®

**Insensitive to moisture**  
Can be applied in areas exposed to moisture



**Inflating Pressure**  
Development of a moderate inflating pressure of up to 1.0 N/mm²



**Cost Savings**  
Flexible sheet and roll material also with self-adhesive backing



## Our Know-how for Your Safety

### Properties

#### Interdens®–

##### Proven protection through phosphate technology

- Designed for use in passive fire protection in areas without moisture exposure
- Easy further processing of the sheet material into cut strips or punched parts possible
- Reaction to fire class E according to EN 13501-1
- CE marked and tested building product

#### Exterdens®–

##### Proven protection through graphite technology

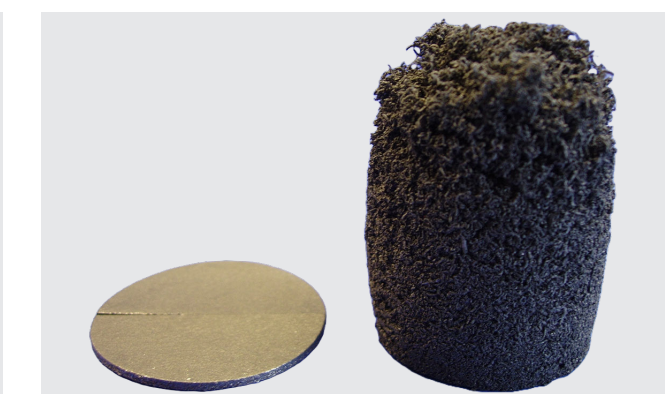
- Designed for use in passive fire protection in outdoor areas and areas with increased moisture exposure
- Rolls partly available with self-adhesive backing
- Reaction to fire class E according to EN 13501-1
- CE marked and tested building product

### Fire protection products from Fire Protectors: The right solution for every application

Fields of application	Interdens®	Exterdens®
Fire doors and gates	✓	✓
Windows/ glazing	✓	✓
Partition walls, ceilings and floors		✓
Safety cabinets and safes		✓
Ventilation systems		✓
Elevator systems		✓
Pipe and cable penetration seals		✓
Installation shafts and cable ducts		✓
Curtain walls		✓
Facades	✓	
Wooden constructions	✓	✓



Foamed-up Interdens® Type 15 sheet: At a temperature of approx. 150 °C, Interdens® Type 15 begins to expand to many times its original volume



Foamed-up Exterdens® FB sheet: At a temperature of approx. 200 °C, Exterdens® FB begins to expand to many times its original volume