Intumescent sheets & seals

INTERDENS® 5, 15 & 36

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Passive Fire Protection

Data sheet
**Product description**

**INTERDENS** is an intumescent material made from ammonium phosphate which protects and enhances the fire resistance of wood and wood-based materials. It is available in semi-rigid boards and seals.

When exposed to fire, **INTERDENS** rapidly produces a large quantity of microporous, heat insulating foam, thereby protecting the treated material from fire. It hermetically fits into the gaps formed by distortion and prevents flames, smoke and gases from passing between two construction elements.

**Features**

**INTERDENS** presents the following characteristics:
- Types 5 and 15 are flexible, type 36 is semi-rigid.
- Intumescence starts at 180°C.
- Does not create expansion pressure.
- Forms a foam with multidirectional expansion.

**Technical data**

### Physical properties of **INTERDENS**

<table>
<thead>
<tr>
<th></th>
<th>Type 5</th>
<th>Type 15</th>
<th>Type 36</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness</td>
<td>0,6 mm*</td>
<td>1 mm*</td>
<td>2 mm*</td>
</tr>
<tr>
<td>Tolerance on thickness</td>
<td>- 0,1 / + 0,2 mm*</td>
<td>- 0,1 / + 0,2 mm*</td>
<td>± 0,2 mm*</td>
</tr>
<tr>
<td>Weight</td>
<td>420 to 550 g/m²</td>
<td>800 to 1120 g/m²</td>
<td>1900 to 2300 g/m²</td>
</tr>
<tr>
<td>Colour</td>
<td>White</td>
<td>White</td>
<td>Brown, red, white</td>
</tr>
</tbody>
</table>

**Water resistance:** For interior use, not stable in permanent contact with water.

**Behaviour of the foam:**

**INTERDENS** foam reacts without expansion pressure.

- Start of intumescence: **180°C**
- Expansion coefficient: ≥ 40 x initial thickness* (at 350°C after 20 minutes)

*Dr. Wolman GmbH specifications. Each manufacturing batch is controlled before leaving the factory and on a regular basis by the “Deutsches Institut für Bautechnik” in Berlin (**INTERDENS 36**: Approval number Z-19.11-484) - (**INTERDENS 5 & 15**: Approval number Z-19.11-483)
Applications

Because of their size and sheet thickness, INTERDENS types 5 and 15 are suitable for protecting flat or curved surfaces by enhancing the fire resistance of construction elements.

In the form of cut strips, INTERDENS types 5 and 15 provide a means of creating a seal where gaps are reduced (partitions, the surrounds of inspection windows etc.). When stamped, INTERDENS types 5 and 15 are used to protect the casings of latch locks and hinges, built-in metal fittings, thus limiting and mitigating combustion of the wood.

INTERDENS type 36 is used as fire resistant seals placed in grooves in structural components (ex: between the door leaf and the frame or wooden chassis).

Example of application: protection of a lock casing with INTERDENS 15.

Protection for metal fittings and hinges made from INTERDENS 15.

Product range

<table>
<thead>
<tr>
<th>INTERDENS Type 5</th>
<th>INTERDENS Type 15</th>
<th>INTERDENS Type 36</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000 x 0,6 x 2000 mm</td>
<td>1000 x 1 x 2000 mm</td>
<td>1000 x 2 x 2040 mm</td>
</tr>
</tbody>
</table>

Options:
- Fabrication from sheets of all types of strips.
- Stamping and fabrication of custom parts – tolerance: ± 0.5 mm.
Long-term efficiency of INTERDENS

The long-term efficiency of the properties of INTERDENS has been proven in normal climatic conditions. The results of tests conducted by the independent institution FMPA in Stuttgart (in accordance with DIN 4102) confirm that the efficiency of INTERDENS remains unchanged after 10 years of storage in a dry place.

Installation

The receiving surface must be free from dust, grease and any kind of wax. Remove poorly adhering paint, roughly sand smooth surfaces. Coat metal elements with an appropriate anti-rust treatment.

In order to ensure the mechanical protection of the seal, it is preferable to install it within a groove.

The seal can be fixed by gluing or stapling, but we recommend fixing by double-sided adhesive strip which is easy to use. This method of fixing requires the seal to be mounted to allow the adhesive strip to be correctly applied to the receiving surface.

Paint

Compatibility with a coat of paint, which should not adversely affect intumescence, is to be tested.

Packaging

INTERDENS in cut strips or pieces is packed in wood or cardboard boxes. INTERDENS in complete sheets is packed on pallets:

<table>
<thead>
<tr>
<th>INTERDENS 5</th>
<th>INTERDENS 15</th>
<th>INTERDENS 36</th>
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</thead>
<tbody>
<tr>
<td>100 sheets/pallet</td>
<td>200 sheets/pallet</td>
<td>100 sheets/pallet</td>
</tr>
</tbody>
</table>

Storage

INTERDENS boards and seals should be stored in a cool dry place.

Health and safety measures

Observe usual workplace health and safety rules. Refer to the safety data sheet.

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