

Intumescent
fire seals with **wood** imitation

GB / 1.11 / Rev. 2

PALUSOL[®] W

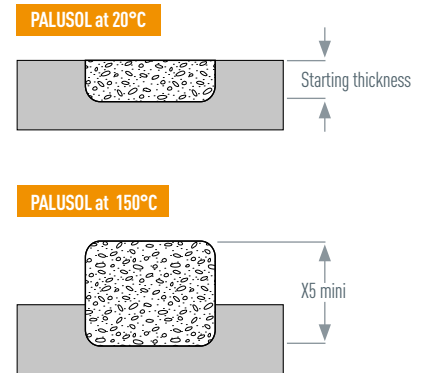


Product description

PALUSOL W is an intumescent fire seal made from **PALUSOL**, a hydrated sodium silicate material, encapsulated in a rigid thermoplastic profile with wood imitation.

When exposed to fire, the **PALUSOL** is activated at a temperature of between 100 and 120°C, the profile runs and a rigid, non-combustible foam is formed which offers a high level of thermal insulation.

In contact with heat, the intumescent material expands in one direction to at least five times its initial thickness. The expansion pressure thereby generated can reach 1.5N/mm². This provides an effective barrier preventing the escape of any flames, smoke or hot gases around the perimeter of a fire-resistant element which is sealed in this way.



Features



In interior applications, the thermoplastic profile extends the service life of the **PALUSOL W** intumescent seal by protecting it against humidity and from carbon dioxide, thus preventing weathering.

The presence of a profile in no way affects the intumescent reaction of the **PALUSOL**.

Other features: refer to the technical data sheets for **PALUSOL 100, 104 & 210**.

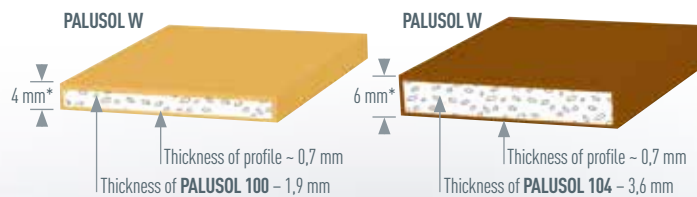
Technical data

Values given for information only (*). Refer to the paragraph on tolerances.

Expansion activation temperature	100 – 120°C
Foaming height 10 min. at 550°C under load	at least 5 times initial thickness
Expansion pressure	≥ 0,9 N/mm ²
Thermal conductivity at 20°C	0,8 W/m.K
Water content	25 to 40% of weight
Areal weight Palusol 100 (average)	3,0 kg / m ²
Areal weight Palusol 104 (average)	15,7 kg / m ²

European Technical Assessment ETA -15/0345

Physical properties of PALUSOL W



Chemical composition

PALUSOL is a material made from hydrated sodium silicate, coated on both sides with an epoxy resin. The centre layer is reinforced with glass fibre. **PALUSOL** is asbestos-free.

Applications

PALUSOL W is intended for use where mechanical resistance is required:

- Peripheral seals for fire resistant systems
- Enhancement of the fire resistance of various elements etc.

Product range

Sections

PALUSOL W <i>Width and thickness</i>	
(10 x 4 mm)	(10 x 6 mm)
(15 x 4 mm)	(15 x 6 mm)
(20 x 4 mm)	(20 x 6 mm)
(25 x 4 mm)	(25 x 6 mm)
(30 x 4 mm)	(30 x 6 mm)

Other sections can also be fabricated.

Adhesive version (ref. SA):

PALUSOL W can be surfaced with a double-sided adhesive strip to facilitate installation.

Standard length:

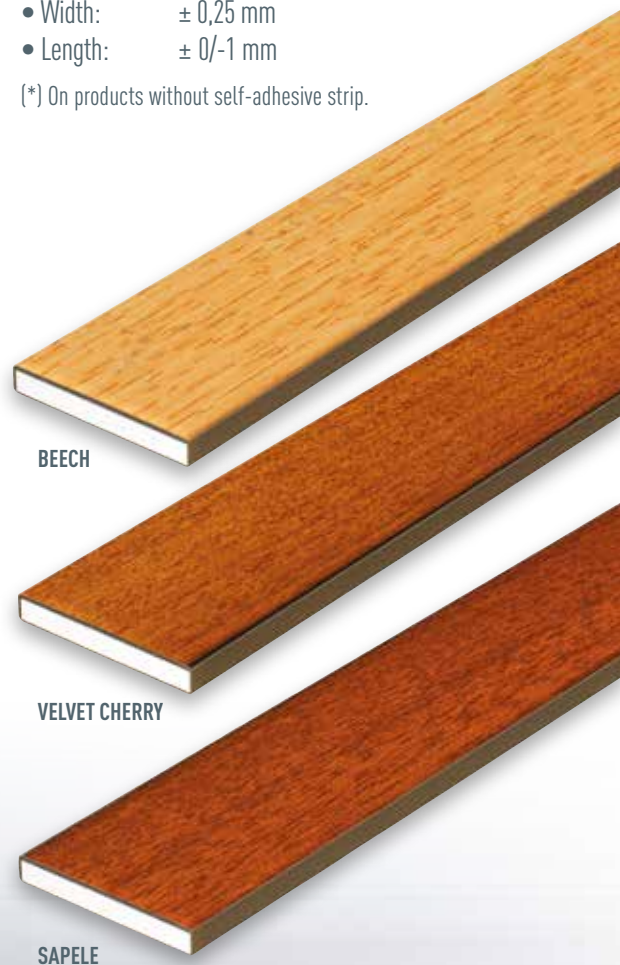
2100 mm

Any other length can be fabricated up to a maximum of 3000 mm.

Tolerances:

- Thickness(*): $\pm 0,2$ mm
- Width: $\pm 0,25$ mm
- Length: $\pm 0/-1$ mm

(*) On products without self-adhesive strip.



Long-term efficiency of PALUSOL

The long-term efficiency of **PALUSOL** has been proven in normal climatic conditions.

The results of tests conducted by BASF SE and by independent institutions (such as the Institut für Holzforschung in Munich) show that after 40 years of prolonged exposure in normal conditions of use, **PALUSOL** retained its efficiency in the event of fire (the expansion height and expansion pressure parameters remained constant).

Recommendations for use

- Do not use at temperatures in excess of 40°C.
- For applications in sustained high humidity levels (> 90%), or when in regular contact with water or steam (marine, rail applications), we recommend the use of **WATERTIGHT PALUSOL W** (a watertight bead is applied to both ends of the seal, thus preventing any penetration of water). Where the customer cuts the seal himself, simply applying a bead of silicone sealant will create an effective barrier

Installation

Since the intumescent action of **PALUSOL W** seal create an expansion pressure, for sealing a fire retardant door it is essential that they are fitted to the edge of the frame or door leaf. In order to achieve an aesthetically acceptable installation as well as mechanical protection, **PALUSOL W** intumescent seals should be fitted into a groove which is wider than the section. This groove will also serve to channel the expansion of the intumescent material.

The receiving surface must be free from dust, grease and any kind of wax. Remove poorly adhering paint.

The seals can be fixed by gluing, 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 surface.

Packaging

PALUSOL W is delivered in flat, semi-rigid profiles, packed into wooden boxes.

Storage

Store carefully in a dry, well-ventilated location.

Health and safety measures

Observe usual workplace health and safety rules

Refer to the safety data sheet for **PALUSOL 100, 104 & 210**.

PALUSOL® is a registered trademark of BASF SE.

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ODICE S.A.S. Passive Fire Protection
 Z.A.E Les Dix Muids - Rue Lavoisier - 59770 Marly - France
 Tél. +33 (0)3 27 19 32 32 - Fax : +33 (0)3 27 21 06 26
 Email : info@odice.com - www.odice.com