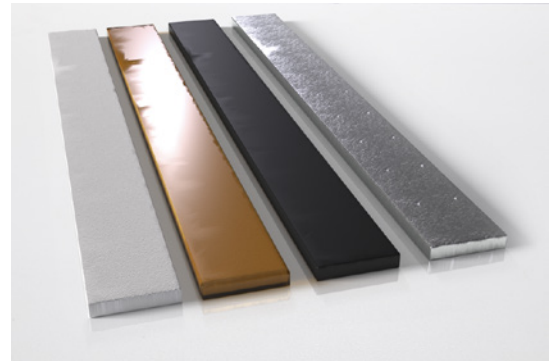


Palusol® is a registered trademark of BASF SE.
Classification A2 (non combustible) in accordance with DIN EN 13501-1
European Technical Assessment ETA-15/0345

Product Description

Palusol® is an intumescent material with excellent technical properties and an early start of reaction at 100 °C. In case of fire, the material develops a non-combustible, heat-retardant, fine-pored and pressure-resistant mass, while the water bound in the material evaporates, ensuring a cooling effect.



Application Areas

- Fire protection doors of steel, aluminium or wood
- Special application areas of fire protection doors, e. g. lock case insulations
- Glazing, facades
- Safety storage cabinets, control cabinets
- Double floors
- Thermal insulation elements
- Partitions
- Cable penetrations
- Gas stop valves, pneumatic drives

Technical Data

	Palusol® 100	Palusol® 104
Composition:	expanding construction material on the basis of hydrous sodium silicate	
Material structure:	firm panel material (flexible between 20 °C and 40 °C)	
Area density [kg/m²]:	3.00	5.80
Start of reaction [°C]:	from approx. 100	from approx. 100
Expansion rate [x times]:	5.0 to 9.0	5.5 to 9.0
Expansion pressure [N/mm²]:	0.95 to 1.60	0.95 to 1.60
Thermal conductivity [W/m·K]:	0.8 (at 20 °C)	0.8 (at 20 °C)



Palusol® is not resistant to water and may therefore only be applied at dry, frost-free indoor conditions, a relative humidity of 50 % und 85 % and ambient temperatures between +5 °C und +35 °C (±5 °C).



Any edges that may have been caused by cutting the material during application can be protected from carbon dioxide by coating them afterwards with epoxy, polyurethane, silicone or other solvent-free material, as long as it is ensured that the composition and the film thickness provide the necessary protection from carbon dioxide of an average of < 300 cm³/(m² × bar × day).

Processing information

- The recommended processing temperature is between approx. 10 °C and 40 °C. At these temperatures, Palusol® is a semi-rigid panel. At temperatures below 10 °C the rigidity of the sheets increases and they should be heated to at least 20 °C before cutting them to avoid breaking.

Cutting:

- It is possible to use conventional metal-cutting shears to cut Palusol® to strips or other forms. For small parts, punching tools can be used. The quality of the edges depends on the condition of the tools and the machine settings. Strips must be further processed immediately to protect them from atmospheric exposure. In special cases the sheets may also be cut with a suitable saw blade. (Observe the precautionary measures.)

Thermoforming:

- By heating, Palusol® can be formed to profiles and other shapes. To achieve this, the sheets are heated to a temperature between approx. 60 °C up to a maximum of 90 °C. While heating the sheets, it is absolutely necessary to avoid directly exposing them to flames.

Joining:

- The epoxy layers on both sides allows Palusol® sheets to be glued across their entire surface to other materials such as wood, steel or plastic, ensuring a firm and durable hold. The appropriate glue and glueing conditions should be determined and optimised by experimenting with the respective surfaces.

Attaching:

- If Palusol® is mechanically attached to a surface, there is a risk of distortion due to cold flow. Adjoining parts of the sheets should overlap to ensure their efficiency in case of fire.



It is necessary to wear personal protective equipment such as chemically resistant gloves, safety goggles and a dust mask. We furthermore recommend exhaust equipment as used for example in wood processing. After application, clean your skin thoroughly and treat it with skin care products.

Design Variants

Palusol® without additional lamination

Variant SK:	single-sided adhesive
Variant E:	completely coated with PVC
Variant PT:	hermetically sealed strips in synthetic profile
Variant T:	hermetically sealed strips in aluminium foil or PVC foil

Standard colours for films and sheeting: red, black and white; more colours on request.

Supply Formats

Dimensions:	2100 mm × 1100 mm
Thickness of material:	1.9 mm and 3.6 mm
Thickness of sheets:	1.9 mm ± 0.4 mm (type 100 with glass fibre roving), 3.6 mm ± 0.6 mm (type 104 with glass fibre roving)

Special formats are available on request. The cut formats (lengths × widths) are manufactured on the basis of the general tolerance DIN ISO 2768-1-c. The formed parts and stamped parts are manufactured on the basis of the general tolerance DIN 7715-5-p2. Please observe the safety data sheet. Store in a dry place at -20 °C to +40 °C.

Storage and transport

Palusol® must be protected from water, high atmospheric humidity and sustained temperatures above 40 °C. The sheets and strips should always be stored lying horizontally and supported over their entire area. Do not stack more than three pallets on top of each other. When transporting individual sheets, take care that edges or corners do not break off. It is recommended to wear protective gloves.

Note

The information in this brochure is based on our knowledge and experience to date. This information does not release the user from carrying out independent tests and trials due to the various influences when processing and applying our product. It is not possible to derive a guarantee of certain properties or suitability of the product in a concrete application case based on our information. All the descriptions, drawings, photographs, data, conditions, weights etc. included may change without previous announcement; they do not constitute the contractually agreed property of the product. The recipient of our product is responsible to observe any trademark rights and existing laws and regulations.