

Technical Leaflet

KBS® Coating

Ablative coating for the fire protection of single and bundled electrical cables and for use in cable as well as mixed penetration seals in connection with mineral fiber boards.

1. Usage

Field of application KBS® Coating is used as a fire protection coating for electrical cables and cable trays. Moreover, it is also a constituent of the panel seal systems KBS® Kombischott ABL in which various kinds of penetrants (cables and pipes) are led through fire compartment walls or floors.
It can be used indoors in dry rooms and outdoors due to its weather resistance.

Application method KBS® Coating can be applied by airless spraying, by hand application or by brush.

2. Application

Concentration The product is ready to spread and does not need to be diluted.

Application as cable coating **Recommended coating thickness *)**: 2.5 mm (wet); 1.6 mm (dry).
It should be noted that the fire protection effect of KBS® Coating is in direct proportion to the coating thickness. The recommended coating thickness represents the optimum under consideration of fire protection effect, current carrying capacity and economy.
Consumption at recommended coating thickness *): approx. 3.0 kg/m². For bundled cables or cables laid in trays, an additional consumption of approx. 30 % must be expected, considering the cable curvatures.
Coating surface: slightly rough, due to the fibers contained.
Drying time: depending on temperature and humidity as well as application thickness, dust-dry within 24 hours (20°C, 60 % humidity).
*) The indicated application quantities and coating thicknesses represent guide values. They may vary depending on the test standard or approval.

Application in KBS® panel seal systems See additional technical documentation.

Cleaning of equipment With water.

Disposal In accordance with national regulations. See also safety data sheet.

3. Scope of testing and approval

Building product class B2 acc. DIN 4102-1 / E acc. EN 13501-1.

ETA Applied for.

Type approval (Germany) Approved as component of the mixed penetration seal system KBS® Kombischott ABL (Z-19.53-2326) and the cable penetration seal systems KBS® Plattenschott ABL 90 (Z-19.53-2518) and KBS® Plattenschott ABL 30 (Z-19.15-1010).

EN 1366-3 Tested and classified as component of the systems KBS® Kombischott ABL (mixed penetration seal).

VKF-Approval (Switzerland) Approved as component of the systems KBS® Kombischott ABL (mixed penetration seal).

FM 3971 and FM 4990 Tested and approved as a cable fire protection coating to prevent fire propagation and as a component of the KBS® Panel Seal ABL system (cable penetration seal).

IEC 60332 and 60331	Tested as a cable fire protection coating to prevent fire propagation and maintain the circuit integrity of electrical cables.
DNV-GL	Tested and approved as a fire protection coating for the marine and offshore sector.
Weathering test	30-years outdoor weathering (MPA – Braunschweig).

4. Product specification

Delivery form	KBS® Coating is a white dispersion-bonded paint.
Odor	In the wet state typical for the species. Odorless after drying.
pH-value	Approx. 8.3 (at 20°C)
Density	Approx. 1.46 g/cm ³ (at 20°C)
Viscosity, dynamic	Approx. 60,000 mPas (at 20°C)
Active ingredients	KBS® Coating contains inorganic, non-combustible fibers, fillers, pigments and various flame retardant additives. KBS® Coating is solvent-free.
Limiting oxygen index (LOI)	≥ 95 %
Thermal conductivity	Approx. $\lambda = 0.69 \text{ W} / (\text{m} \cdot \text{K})$ at 25°C
Specific resistance	Approx. $\rho = 1.06 \cdot 10^9 (\Omega \cdot \text{cm})$ at 23°C / 50 % RH Approx. $\rho = 4.10 \cdot 10^5 (\Omega \cdot \text{cm})$ at 23°C / 83 % RH

5. Storage

Storage conditions	Store in closed containers. Carefully reseal opened containers after use.
Storage temperature	5 – 30°C. Protect from frost!
Shelf life	In sealed original containers at recommended storage temperature at least 18 months.

6. General Instructions

Product variants	KBS® Coating is also available as halogen-free variant under the designations KBS® Coating CLF, as well as KBS® Coating brushable with optimized working properties for brush application.
Compatibility with chemicals	Tested on a wide range of chemical substances, see separate data sheet.
Packaging	Pails with 7 kg and 25 kg, plastic drum with 35 kg content.
Safety precautions	When working with KBS® Coating it is generally recommended to wear safety glasses and protective gloves. When using airless spray equipment, cover the respiratory tract with suitable mouth/nose protection.

This information and all further technical advice reflect our present knowledge and experience. The purpose is to inform interested parties about our products and their use and should not be construed as guaranteeing specific properties of products described or their suitability for a particular application, nor as providing complete instructions for use. The information implies no guarantee for product and shelf life properties, nor any liability or other legal responsibility on our part. Any existing third-party intellectual property rights, especially patent rights, must be taken into consideration. Application and usage of our products based on our technical advice are beyond our control and are the sole responsibility of the user. The user is not released from the obligation to conduct careful inspection and testing of incoming goods in order to verify the suitability for the intended application. For experimental products we do not guarantee for later commercial availability. Validly existing laws and provisions must be taken into consideration by the recipient of our products. In addition, the currently valid version of our general conditions of sale applies.

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