BUILDING TRUST

PRODUCT DATA SHEET

Sika® Unitherm® Top S

SOLVENT BASED PVC-AY TOPCOAT FOR FIRE PROTECTION COATINGS ON STRUCTURAL STEEL

PRODUCT DESCRIPTION

Sika® Unitherm® Top S and Sika® Unitherm® Top S EG (DB colour shades) are high build single pack topcoats specially designed for Sika® Unitherm® and Sika® Pyroplast® intumescent fire protection systems against humidity and mechanical strain.
Sika® Unitherm® Top S / Sika® Unitherm® Top S EG has no impact on the formation of the heat insulating foam of the intumescent coatings.

USES

Sika® Unitherm® Top S installation works to be carried out only by Sika Approved Contractors. Please observe information given by Product Data Sheets.

Sika® Unitherm® Top S / Sika® Unitherm® Top S EG is used as topcoat on fire protected structural steelwork for weathering and / or decorative reasons.
In special conditions, i.e. frequent formation of condensation and / or heating up of surfaces above + 45°C, adequate arrangements should be taken.
In dry and clean conditions, top coating with Sika® Unitherm® Top S / Sika® Unitherm® Top S EG on Sika® Unitherm® and Sika® Pyroplast® fire protection coatings may not required.

CHARACTERISTICS / ADVANTAGES

- No impact on the foaming reaction of intumescent coatings
- Applicable on all Sika® Unitherm® and Sika® Pyroplast® intumescent coating systems for steel
- Meets Type X classification (i.e. exterior conditions) as part of the coating system
- Simple application, does not increase static load
- Individual coloration possible with corresponding topcoat, various colour shades in RAL, others available

PRODUCT INFORMATION

Packaging	Sika® Unitherm® Top S / Sika® Unitherm® Top S EG	13 kg net.
	Sika® Unitherm® Thinner	25 l and 5 l
Appearance / Colour	RAL colour shades, DB colour shades (MIO) Others available on request.	
Shelf Life	18 months	
Storage Conditions	In originally sealed containers in a cool and dry environment.	
Density	~1.30 g/cm³ Sika® Unitherm® Top S (colour shades in RAL)	

	~1.25 g/cm³ Sika® Unitherm® Top S EG (DB colour shades (MIO))
Flash Point	+ 38°C
Solid Content	~61 % by weight (according to ISO 3251)

SYSTEM INFORMATION

Systems

<u>Steel:</u>	
Surface and / or primer	See corresponding product data sheet of the Sika® Unitherm® or Sika® Pyroplast® intumescent coating range
Intumescent coating	Sika® Unitherm® or Sika® Pyroplast® intumescent coating for steel
Topcoat	Sika® Unitherm® Top S / Sika® Unitherm® Top S EG
<u>Galvanized steel:</u>	
Interface	Sika® Permacor®-2706 EG
Intumescent coating	Sika® Unitherm® or Sika® Pyroplast® intumescent coating for steel
Topcoat	Sika® Unitherm® Top S / Sika® Unitherm® Top S EG

APPLICATION INFORMATION

Consumption

<u>Interior use (Type Z1/ Z2):</u>	
Dry film thickness	~60 µm
Theoretical coverage	min. 160 g/m²
<u>Exterior use (Type X):</u>	
Dry film thickness (total)	~100 µm
Theoretical coverage	min. 2 x 140 g/m²

The quantities do not cover any material wastages. In case of diluting the loading has to be increased.

Relative Air Humidity

Max. 80 %, application temperature shall be at least ≥ 3 K above dew point.
During application and drying of total Sika® Unitherm® coating system including Sika® Unitherm® Top S / Sika® Unitherm® Top S EG topcoat as well as transportation special protection measures must be taken against weathering.
<u>Note</u>: With critical situation i.e. frequent formation of condensation and / or heating up of surfaces above + 45°C, adequate arrangements should be taken.

Surface Temperature

Object temperature not below + 5°C, to max. + 40°C*
* If higher temperatures occur, please consult the technical department for further assistance.

Waiting Time / Overcoating

Sika® Unitherm® Top S / Sika® Unitherm® Top S EG requires a minimum of 24 h drying prior application with itself.
A complete drying of the fire protection coating prior topcoat application is highly recommended.
Through-drying of the used Sika® Unitherm® or Sika® Pyroplast® intumescent coating can be checked by 'fingernail-test'.
Prior to further applications possible contaminations must be removed.

Drying time

Drying/Curing
Average drying time of Sika® Unitherm® Top S / Sika® Unitherm® Top S EG at approx. + 20°C object temperature and 60 % relative humidity:

Touch-dry	~4 h
Overcoatable with itself	~24 h
Through-drying	~48 h

Different temperature, different relative humidity and different coating thickness have an influence on drying time.

APPLICATION INSTRUCTIONS

SURFACE PREPARATION

Prior to application of Sika® Unitherm® Top S / Sika® Unitherm® Top S EG topcoat, the surface to be coated must be dry, clean and free from dirt, oil, grease or any other contamination.

MIXING

Stir thoroughly, free of lumps.

APPLICATION

The method of application has a major effect on achieving uniform thickness and appearance. Spray application will give the best results. The indicated dry film thickness is easily achieved by airless spray. In case of application by roller or brush, additional layers may become necessary to achieve the required coating thickness, depending on type of construction, site conditions, colour shade etc. Prior to application a trial on site may be useful to ensure the selected application method will provide the requested results.

Airless spraying:
- Material shall be applied undiluted
- Airless spray equipment with transmission ≥ 30 : 1, pressure approx. 200 bar
- Hose diameter not below ⅜ “
- Whip line ¼ “ may be used
- Nozzle size 0.28 - 0.38 mm (0.011 - 0.015 inch)
- Hoses must be solvent resistant!

Above data shall be used as a guideline with variations being made to suit local conditions.

Brushing and rolling:
- Material shall be applied undiluted
- Solvent resistant brush or roller must be used
- More than one coat may be necessary

CLEANING OF TOOLS

Immediately after use with Sika® Unitherm® Thinner.

VALUE BASE

All technical data stated in this Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

ECOLOGY, HEALTH AND SAFETY

Local safety regulations must be observed and it advisable to wear PPI when working with this product with particular attention paid to cutting and handling. Transportation Class: The product is not classified as hazardous good for transport. Disposal: The material is recyclable. Disposal must be according to local regulations. Please contact your local Sika sales organisation for more information.

DIRECTIVE 2004/42/CE - LIMITATION OF EMISSIONS OF VOC

According to the EU Directive 2004/42/CE, the maximum allowed content of VOC (product category IIA / j type Sb) is 500 g/l (Limits 2010) for the ready to use product.

The maximum content of Sika® Unitherm® Top S / Sika® Unitherm® Top S EG is < 500 g/l VOC for the ready to use product.

LEGAL NOTES

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product’s suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.

SIKA IRELAND LIMITED
Ballymun Industrial Estate
Ballymun
Dublin 11, Ireland
Tel: +353 1 862 0709
Web: www.sika.ie
Twitter: @SikaIreland