

Product Data SheetEdition 6, 2010
Version no: 01/10**Sika® Unitherm® concrete S**

Solvent based fire protection coating system

For concrete, interior use

Product Description

Sika® Unitherm® concrete S is a solvent based fire protection coating system for concrete, masonry and brickwork located in interior situations, i.e. not exposed to weathering.

Sika® Unitherm® concrete S forms an insulating carbon char foam under the effect of heat or fire and protects the concrete substrate against heat and fire.

Apply Sika® Unitherm® concrete S on masonry or concrete areas to provide a fire resistance period up to 240 minutes according to prENV 13381-3.

Application areas: For interior use on concrete, masonry and brickwork to improve the fire resistance.

Characteristics:

- Protection of concrete, masonry and brickwork against fire or heat
- Delays heat transfer through walls in case of fire
- Low material consumption
- Simple application
- Individual coloration possible with corresponding topcoat, various colour shades in RAL, others available

Product Data

Colour shades: White

Packaging 25 kg, net weight.

IMDG-Code No: Class 3.3, UN-No.: 1263

Shelf-Life 12 months from date of production in cool and dry storage conditions, original, unopened containers.

Systems

Coating systems: Fire protection coating for concrete:
Sika® Unitherm® concrete S
Topcoat
Sika® Unitherm® 7854

Surface

Surfaces to be coated must be swept off and vacuum cleaned afterwards.

Pre-treatment:

The areas have to comply with building standards. They have to be solid, adherent, free of sludge, dirt, oil, grease, wax, water-repellent agents and other contamination preventing proper adhesion. Residual humidity in the concrete must be below 4% according to CM-humidity measuring instrument.

A compatibility test on existent coatings with the fire protection system is recommended.

Any damage (impact, corrosion, etc.) should be repaired prior the coating.

Technical Data

Mass density: Approx. 1.29 g/cm³

Solids by weight: ~ 70% (according: EN ISO 3251)

Flash point: + 26° C



Consumption:

Protection of concrete walls, masonry and brickwork		
Fire resistance period (minutes)	Concrete thickness (mm)	Coverage (kg/m ²)
120	≥ 70	0.8
180	≥ 87	0.8
240	≥ 97	2.0

Several coating layers are necessary for quantities of more than 800 g/m²

Application instructions

Preparation of Coating material: Stir thoroughly with slow turning mechanical stirrer, free of lumps.

Application Method: Airless spraying:

- Material shall be applied undiluted
- Airless spray equipment with transmission > 45 : 1, flow rate 4 -5 l/min.
- Screens and filters must be removed
- Hose diameter not below 3/8"
- Whip line 1.5 -2 m, NW 6 may be used
- Recommended nozzle size 0.53 – 0.66 mm or 0.019" - 0.027"
- Solvent resistant hoses must be used!

Brushing / rolling:

- Material shall be applied undiluted

Application Conditions: Object temperature not below +5°C, to max. +50°C
 Relative humidity max. 80%
 Application temperature shall be at least ≥ 3 K above dew point. In case relative humidity exceeds 80% special measures must be taken to prevent the condensation forming while application

Drying; Approx. 15 hours for each fire protection coat for exterior use at +20°C object temperature and 65% relative humidity. Lower temperature, higher relative humidity and different fire protection coating thickness may extend drying time. Sika® Unitherm® concrete S requires a minimum of 48 hours drying before the application of topcoat Sika® Unitherm® 7854. Through-drying of Sika® Unitherm® concrete S can be checked by "fingernil-test"

Cleaning of equipment: Immediately after use with Sika Unitherm thinner 11089.

Important notice

EU Regulation 2004/42 (Decopaint Directive) The maximum allowed VOC content acc. To EU regulation 2004/42 (product class IIA / i, type Sb) in the ready for use material is 500 g/l (limit 2010).
 The maximum VOC content of Sika® Unitherm® concrete S is < 500 g/l VOC.

Notes regarding hazards: Detailed health and safety information as well as relevant precautionary measures – e.g. physical, safety, toxicological and ecological data – may be found in our material safety data sheets.
 Please consider all relevant and applicable regulations regarding hazardous substances.

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.

