

# Sika® Unitherm® concrete A

Water based fire protection coating system

For concrete, interior use

**Product Description** Sika® Unitherm® concrete A is a water based fire protection coating system for concrete, masonry and brickwork located in interior situations, i.e. not exposed to weathering. Sika® Unitherm® concrete A 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 A on masonry or concrete areas to provide a fire resistance period up to 180 minutes according to prENV 13381-3.

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

**Characteristics:**

- Water based coating system
- 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** 25.0 kg, net weight.

**Shelf-Life** 12 months from date of production if stored properly in original, unopened containers, in dry conditions  
Protect from frost.

## Systems

**Coating systems:** Fire protection coating for concrete:  
Sika® Unitherm® concrete A  
Topcoat  
Sika® Unitherm® 7854 (solvent based)  
or  
Sika® Unitherm® 38202 (water based)

**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:** ~ 1.32 g/cm<sup>3</sup>

**Solids by weight:** ~ 67% (according: EN ISO 3251)

**Flash point:** Not applicable

### Consumption:

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

## 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 0.41 – 0.56 mm or 0.017" - 0.023"
- Use hoses for dispersion only!

Brushing / rolling:

- Material shall be applied undiluted

**Application Conditions:** Object temperature not below +10°C, to max. +40°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 A can be checked by "fingernail-test"

**Cleaning of equipment:** Immediately after use with water.

## Important notice

**EU Regulation 2004/42 (Decopaint Directive)** The maximum allowed VOC content acc. To EU regulation 2004/42 (product class IIA / i, type Wb) in the ready for use material is 140g/l (limit 2010).  
The maximum VOC content of Sika® Unitherm® concrete S is < 140 g/l VOC.

**Health and Safety Information** Please observe safety instructions on container labels and local regulations.  
Dangerous goods regulations have to be followed.  
During application in closed rooms, pits and shafts etc., sufficient ventilation must be provided. Keep away open light, including welding.  
In poorly lit rooms only electric safety lamps are permitted. The installed ventilation equipment must be spark-proof.  
In a liquid, or not fully cured state, the thinner and the products contaminate water and should not be allowed to enter drains or be spilled onto open ground.  
All spillages and liquid waste must be removed according to local Health and Safety regulations.  
Further details are contained in our instructions "Health protection and the prevention of accidents".

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**Value Base**

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

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**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.

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