

Sika® Permacor® 2807/HS-A

Solvent free, conductive, hot spray epoxy coating

Product Description

Sika Permacor 2807/HS-A is a solvent free 2-component epoxy coating. Application with 2-component hot-spray equipment.

The coating has high physical strength, with good abrasion and impact resistance.

It is approved by the building authorities of German DIBt for the internal lining of steel tanks designed for the storage of flammable liquids. Meets the requirements of TRbF 401/402.

It is approved to STS-M67 for the internal lining of tanks – as required by Bundeswehr and NATO for the storage of flammable liquids.

It is certified in compliance with KIWA-Directive BRL-K779/03 for the internal lining of steel tanks designed for the storage of flammable liquids.

VNIIST-Certificate / internal lining of tanks designed for the storage of crude oil, light and dark petroleum products and aviation gasoline.

VNIIST-Certificate / internal lining of pipes for the transportation of water/oil/gas mixtures.

It is inert and harmless in accordance with German food legislation.

Fields of application

Permacor 2807/HS-A is ideally suited for the corrosion protection of steel, stainless steel, aluminum, concrete and cement faced surfaces in direct contact with various media (see "Resistance List Tank").

The principal use of Permacor 2807/HS-A is the internal lining of tanks, containers, silos, secondary containment structures, waste water treatment facilities and pipelines.

Permacor 2807/HS-A is also particularly suitable for the coating of old and highly eroded and pitted steel tanks – without extra laminate reinforcement.

Properties

- High chemical resistance to water, aggressive effluents, flammable and non-flammable liquids, as well as a wide range of chemicals and foodstuffs
- Conductive
- High diffusion resistance
- Very good adhesion to steel, stainless steel, aluminum and mineral surfaces
- Economical, one-coat application
- Traceable references and track record for a service life of more than 20 years

Product Data

Colour shades	Grey, approx. RAL 7024 (component A: light grey / component B: dark grey)
Finish	Glossy
Packaging	Component A: Sika Permacor 2807/HS-A (A): 200; 25; 1 and 0,1 kg Component B: Sika Permacor 2800/HS-A (B): 200; 25; 0,5 and 0,05 kg
Shelf-Life	In originally sealed containers in a cool and dry environment: min. 2 years.

Systems

Coating systems	<u>Steel (coating for flammable liquids):</u> 1 x Sika Permacor 2807 HS-A (min. 500 microns up to max. 1800 microns) <u>Steel, stainless steel and aluminum:</u>
-----------------	--

Construction



1 x Sika Permacor 2807 HS-A (min. 500 microns up to max. 2500 microns)

Concrete:

1-2 x Sikagard 720 EpoCem

1 x Sikafloor 156

1 x Sika Permacor 2807 HS-A (min. 1000 microns up to max. 2500 microns)

Surface preparation

Steel:

Remove all weld spatters, and then grind welds and joints in accordance with EN 14879-1.

Blast cleaning to Sa 2^{1/2} according to EN ISO 12944, part 4.

Free from dirt, oil and grease. Average roughness depth R_Z ≥ 50 microns.

Stainless steel and aluminum:

Sweep blast in accordance with ISO 12944-4. Only non-metallic abrasives should be used.

Average roughness depth R_Z ≥ 50 microns. Ensure substrate is free from contaminants detrimental to adhesion.

Concrete:

Surfaces to be coated must meet recognized building standards, i.e. be solid, load-bearing and free from contaminants detrimental to adhesion. Pull-off adhesion strength in accordance with DIN 1048 should be >1.5 N/mm² on average with the lowest reading no less than 1.0 N/mm². For areas subject to heavy mechanical loading, the average value should be >2.0 N/mm² and the lowest reading no less than 1.5 N/mm². Apply suitable compatible undercoats and observe recommended overcoating intervals.

Technical data

Material consumption

Specific Gravity liquid	Solids content Approx. %		Theoretical material-consumption/coverage without loss for medium dry film thickness of			
	by vol.	by weight	dry microns	wet microns	approx. kg/ m ²	approx. m ² /kg
approx. kg/L	100	100	500	500	0.75	1.33
			1000	1000	1.5	0.67

Mixing ratio in parts

by weight: 100 : 50 (2 : 1)

by volume: 100 : 66 (1.5 : 1)

(Components A : B)

Resistance:

Chemicals:

See "Resistance List Tank" resp. upon request .

Temperature:

Dry heat up to approx. + 100°C

Abrasion resistance:

In accordance with ASTM D 4060 (Taber Abraser): 235 mg/100 U (load: 500 g; disc S 33)

Buchholz hardness:

In accordance with ISO 2815: approx. 100

Porosity test

Due to the electrical conductivity of the coating, this may only be assessed visually.

Electrical resistance:

Max. 1 x 10⁸ Ω

Hints on application

Preparation of material

Application exclusively with 2-component-hot-spray airless equipment. Stir both components separately prior to application.

Do not add any thinner.

Application method

Hot spraying:

	<p>undiluted, use special airless hot-spray machine, spray tip: $\geq 0,53$ mm (0,021 inch) spray angle: e.g. 50° temperature at spray tip: +65°C to +70°C</p> <p>Repair: undiluted, Suitable only for the repair of small areas! Clean and prepare damaged areas by sanding or sweep blasting of areas to be coated and ensure thorough removal of dust. As soon as possible the cold mixed material should be applied by trowel.</p>
Application temperature	Min. + 10°C (ambient and surface)
Relative humidity	<p>Max. 80% relative humidity (surface temperature $\geq 3^\circ\text{C}$ above the dew point). When conditions approach these critical limits, the use of heating and dehumidification equipment is essential.</p>
Potlife	<p>At + 20°C approx. 30 minutes At + 60°C approx. 5 minutes</p>
Drying time at 20°C	<p>Touch dry after 6 hours walkable after 12 hours full mechanical and chemical cure: after approx. 2 days at +23 °C after approx. 3 days at +12 °C after approx. 5 days at +7 °C</p>
Waiting time between coats	<p>Max. 4 h at + 20°C In case of longer waiting times the surface must be activated by sweep blasting.</p>
Overcoating	With itself. Other products - refer to Sika.
Final drying time	<p>Full mechanical and chemical resistance after 7 days at +20°C. Containers or pipes can be sealed immediately after the coating has been applied. The coating hardens without the need for ventilation!</p>
Advice on first filling:	Before the first filling of newly coated tanks or pipes with potable water or foodstuffs, it is recommended that the vessel is completely filled and rinsed with water for at least 1 day.
Cleaning of implements	Sika Permacor Cleaner HS
Important notice	
Precautionary Measures:	<p>Please observe safety instructions on container labels and local regulations. Dangerous Goods regulations have to be followed.</p> <p>During application in closed rooms, pits and shafts etc., sufficient ventilation must be provided. Keep away open light, including welding.</p> <p>In poorly lit rooms only electric safety lamps are permitted. The installed ventilation equipment must be spark-proof.</p> <p>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.</p> <p>Further details are contained in our instructions "Health protection and the prevention of accidents".</p>
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.



Construction

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 (China) Ltd.
No.28 Jingdong Road, Suzhou Industrial Park,
JiangSu, P.R.China
Postal Code: 215121
Tel: (86) 512 6273 2888
Fax: (86) 512 6287 7070
<http://chn.sika.com>



ISO 9001: 2008
Certificate No.:CC3576



ISO 14001:2004
Certificate No.:CC3577

The product is manufactured under a HKQAA ISO9001/ISO14001 certified quality/environmental management system.