BUILDING TRUST

PRODUCT DATA SHEET

Sikaflex® Tank N

DESCRIPTION

Sikaflex® Tank N is a 1-component, moisture-curing, elastic joint sealant.

USES

Sikaflex® Tank N shall be used by professional applicators only.
Sikaflex® Tank N is designed for use in areas that are used for the storage, filling and handling of water polluting liquids such as: floor joints in petrol stations, joints in handling areas, storage tanks and containment bunds, and movement and connection joints in parking garages.

FEATURES

- High chemical resistance
- High mechanical resistance
- Movement capability of ± 25% (ISO 9047)
- Good application properties

CERTIFICATES AND TEST REPORTS

- European Technical Approval ETA-09/0272

PRODUCT INFORMATION

Composition	Polyurethane	
Packaging	600 ml foil pack, 20 foil packs per box	
Shelf life	Sikaflex® Tank N has a shelf life of 12 months from the date of production, if it is stored in undamaged, original, sealed packaging, and if the storage conditions are met.	
Storage conditions	Sikaflex® Tank N shall be stored in dry conditions, where it is protected from direct sunlight and at temperatures between +5 °C and +25 °C.	
Colour	Concrete grey, black	
Density	1.50 kg/l approx.	(ISO 1183-1)

TECHNICAL INFORMATION

Shore A hardness	35 approx. (after 28 days)	(ISO 868)
Secant tensile modulus	0.60 N/mm² approx. at 100% elongation (23 °C) 1.10 N/mm² approx. at 100% elongation (−20 °C)	(ISO 8339)
Tensile strain at break	700% approx.	(ISO 37)
Movement capability	± 25%	(ISO 9047)
Elastic recovery	80% approx.	(ISO 7389)

Tear propagation resistance	8.0 N/mm approx.	(ISO 34)
Service temperature	–40 °C to +70 °C	

Chemical resistance

The following is a list of liquids for which the joint- sealing system is impermeable and resistant for up to 72 hours (medium duty). For these liquids Sikaflex® Tank N is approved according to TRwS (Technical Rules on substances Hazardous to Water) for sealing in storage / filling / handling facilities for water-polluting products.

Group no.*	Liquids
DF 1 + 1a	Petrol (gasoline) for motor vehicles to DIN 51600 and DIN EN 590
DF 2	Aviation fuels
DF 3 + 3a + 3b	Extra-light heating oil (DIN 51603-1), diesel fuel (DIN EN 590), unused internal combustion engine oils and unused vehicle gear oils, mixtures of saturated and aromatic hydrocarbons with an aromatic content < 20% by weight and a flash point > 55 °C
DF 4	All hydrocarbons
DF 4a	Benzene and benzene-containing materials
DF 4b	Crude oils
DF 4c	Used internal combustion engine oils and used vehicle gear oils with a flash point > 55 °C.
DF 5	Monohydric and polyhydric alcohols (< 48% by volume methanol) glycol ethers
DF 5a	All alcohols and glycol ethers
DF 5b	Monohydric and polyhydric alcohols ≥ C_2
DF 11	Inorganic alkalis and alkaline-hydrolysing inorganic salts in aqueous solutions (pH > 8), excluding ammonia solutions and oxidising salt solutions (i. e. hypochlorite).

*As specified in approval guidlines for joint-sealing systems in storage/filling/handling facilieites for water-polluting liquids, Part 1. See DIBt (German Institute for Construction Technology) documentation, Book 16.1.

Joint design

The relevant technical rules for joints with elastic sealants have to be considered.
All joint sealing in storage / filling / handling facilities for water-polluting liquids and in water pollution control have to be made according to the technical approval for Sikaflex® Tank N (ETA-09/0272) and its annexes. To avoid damage to sharp edges in in-situ concrete a chamfer (approx. 3–5 mm) should be made on the sides of the joint.

The joint width must be designed to suit the joint movement required and the movement capability of the sealant. The joint width shall be > 10 mm and < 35 mm. A width to depth ratio of 1:0.8 must be maintained (for exceptions, see table below).

Standard joint widths for joints between concrete elements

Joint distance [m]	Min. joint width [mm]	Min. joint depth [mm]
2	10	10
4	15	12
6	18	15
8	20	18
10	30	25

All joints must be correctly designed and dimensioned in accordance with the relevant standards, before their construction. The basis for calculation of the necessary joint widths are the type of structure and its dimensions, the technical values of the adjacent building materials and the joint sealing material, as well as the specific exposure of the building and the joints. For larger joints please contact our Technical Service Department.

APPLICATION INFORMATION

Consumption

Joint length [m] per 600 ml foil pack	Joint width [mm]	Joint depth [mm]
6	10	10
3.3	15	12
1.9	20	16
1.2	25	20
0.8	30	24

Sag flow	0 mm (20 mm profile, 50 °C)	(ISO 7390)
Ambient air temperature	+5 °C to +40 °C, min. 3 °C above dew point temperature	
Substrate temperature	+5 °C to +40 °C	
Backing material	Use closed cell, polyethylene foam backing rods.	
Curing rate	2.5 mm/24 hours approx. (23 °C / 50% r.h.)	(CQP 049-2)
Skinning time	90 minutes approx. (23 °C / 50% r.h.)	(CQP 019-1)

BASIS OF PRODUCT DATA

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

FURTHER DOCUMENTATION

- Safety Data Sheet
- Pre-treatment Chart Sealing and Bonding

IMPORTANT CONSIDERATIONS

- Sikaflex® Tank N can be over-painted with most conventional facade coating paint systems. However, paints must first be tested to ensure compatibility by carrying out preliminary trials (e.g. according to ISO technical paper: Paintability and Paint Compatibility of Sealants). The best over-painting results are obtained when the sealant is allowed to fully cure first. Note: non-flexible paint systems may impair the elasticity of the sealant and lead to cracking of the paint film.
- Colour variations may occur due to exposure to chemicals, high temperatures and/or UV-radiation. However, a change in colour is purely of aesthetic nature and does not adversely influence the technical performance or durability of the product.
- Do not use Sikaflex® Tank N on natural stone.
- Do not use Sikaflex® Tank N as a glass sealer, on bituminous substrates, natural stone, natural rubber, EPDM rubber or on any building materials which might bleed oils, plasticizers or solvents that could attack the sealant.
- Do not use Sikaflex® Tank N to seal joints in and around swimming pools.
- Do not expose uncured Sikaflex® Tank N to alcohol containing products as this may interfere with the curing reaction.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

The substrate must be clean, dry, sound and homo-

geneous, free from oils, grease, dust and loose or friable particles. Cement laitance must be removed. Grinding the surface of non-porous substrates with a very fine abrasive pad may improve the adhesion performance of Sikaflex® Tank N.
The Sikaflex® Tank N joint sealing system is approved for application on uncoated liquid proofed precast concrete elements. Sikaflex® Tank N has a technical approval for use in storage / filling / handling facilities for water-polluting liquids or grade ≥C35/C45 ≤C50/60 (EN 206-1), in-situ concrete to DIN 1045 as “FD” (liquid proof) concrete, or “FDE” (penetration-tested liquid-proof) concrete.

Non- porous substrates

Aluminium, anodised aluminium, stainless steel, galvanised steel, powder coated metals or glazed tiles have to be cleaned and pre-treated using Sika® Aktivator-205, wiped on with a clean towel. Before sealing, allow a flash-off time of > 15 minutes (< 6 hours).
Other metals, such as copper, brass and titanium-zinc, also have to be cleaned and pre-treated using Sika® Aktivator-205,wiped on with a clean towel. After the necessary flash-off time, use a brush to apply Sika® Primer-3 N and allow a further flash-off time of > 30 minutes (< 8 hours) before sealing the joints.
PVC has to be cleaned and pre-treated using Sika® Primer-215 applied with a brush. Before sealing, allow a flash-off time of > 30 minutes (< 8 hours).

Porous substrates

Concrete, aerated concrete and cement-based renders, mortars, and brick have to be primed with Sika® Primer-215, for uses in accordance with ETA-09/0272, or Sika® Primer-3 N applied with a clean brush or roller. Before sealing allow a flash-off time of >30 minutes (<8 hours).

For more detailed advice and instructions please contact the local Sika Technical Services Department.

Note: Primers are adhesion promoters. They are neither a substitute for the correct cleaning of a surface, nor do they improve the strength of the surface significantly.

APPLICATION METHOD / TOOLS

Sikaflex® Tank N is supplied ready to use.
After the necessary substrate preparation, insert a suitable backing rod to the required depth and apply any primer if necessary. Insert a foil pack or cartridge into the sealant gun and extrude Sikaflex® Tank N into the joint making sure that it comes into full contact with the sides of the joint and avoids any air entrapment. Sikaflex® Tank N sealant must be firmly tooled against the joint sides to ensure adequate adhesion. It is recommended to use masking tape where exact joint lines or neat lines are required. Remove the tape within the skin time. Use a compatible tooling agent (e.g. Sika® Tooling Agent N) to smooth the joint surfaces. Do not use tooling products containing solvents.

CLEANING OF EQUIPMENT

Clean all tools and application equipment immediately after use with Sika® Remover-208 and/or Sika® Top-Clean T. Once cured, residual material can only be removed mechanically.

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 exact product data and uses.

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 . The Product Data Sheet can be obtained from aze.sika.com website or upon on a request from the e-mail address info@az.sika.com .

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