

## PRODUCT DATA SHEET

# Sika Waterbar® DF AT

## EXTERNAL WATERBARS FOR EXPANSION JOINTS

## PRODUCT DESCRIPTION

Sika Waterbar® DF AT are flexible, external waterbars for expansion joints made from PVC-P.

#### **USES**

Watertight expansion joint sealing in new concrete structures.

Typical structures include for example:

- Residential building basements
- Commercial building basements
- Underground car parks
- Water retaining structures

## **CHARACTERISTICS / ADVANTAGES**

- Permanent flexibility
- Homogeneous waterbar

• The waterbars must be protected from heat and UV radiation.

- Suitable for low to medium levels of hydrostatic water pressure
- Resistant to all natural mediums in soil and groundwater
- Robust products designed for handling and installation on site
- Suitable for thermal welding on site

## PRODUCT INFORMATION

| Chemical Base       | PVC-P (plasticized)   |                 |
|---------------------|---|-----------------|
| Packaging           | Туре  | Roll length [m] |
|                     | SikaWaterbar® DF-24   | 15              |
|                     | SikaWaterbar® DF-32   | 15              |
| Appearance / Colour | Yellow  |                 |
| Shelf Life          | Up to 60 months from date of production.  |                 |
| Storage Conditions  | Store in originally sealed, undamaged packaging, in a dry place at temperatures between +5°C and +30°C.   |                 |
|                     | <ul> <li>Long-term storage ≥ 6 months:</li> <li>The storage area must be covered, cool, dry, free from dust and moderately ventilated.</li> </ul> |                 |

Product Data Sheet Sika Waterbar® DF AT November 2019, Version 01.01 020703100100000191 **Short-term storage < 6 months** (on construction sites, outdoors < 6 weeks):

- In dry conditions, protected from UV radiation, snow and ice, and any kind of contamination or mechanical damage.
- Store separately from any potentially harmful or damaging materials, plant or equipment such as structural steel, steel reinforcement, fuel or vehicles, etc.
- Store away from trafficked areas and roads on site to avoid damage.

| Total Width                | Туре                | Total width [mm]     |  |
|----------------------------|---------------------|----------------------|--|
|                            | SikaWaterbar® DF-24 | 240                  |  |
|                            | SikaWaterbar® DF-32 | 320                  |  |
| Width of Movement Part     | Туре                | Width [mm]           |  |
|                            | SikaWaterbar® DF-24 | 90                   |  |
|                            | SikaWaterbar® DF-32 | 100                  |  |
| Thickness of Movement Part | Туре                | Thickness [mm]       |  |
|                            | SikaWaterbar® DF-24 | 4.0                  |  |
|                            | SikaWaterbar® DF-32 | 4.0                  |  |
| Sealing Ribs               | Туре                | Number of ribs [pcs] |  |
|                            | SikaWaterbar® DF-24 | 4                    |  |
|                            | SikaWaterbar® DF-32 | 6                    |  |

## **TECHNICAL INFORMATION**

| Shore A Hardness                       | 75 ± 5   | (DIN 53505)  |
|--|--|--|
| Tensile Strength                       | >12 MPa  | (EN ISO 527-1/-2)                                  |
| Elongation                             | >300 % (EN ISO 527-1/-2  |  |
| Tear Strength                          | >12 N/mm (ISO 34-1   |  |
| Reaction to Fire                       | Class E  | [EN ISO 11925-2][EN 13501-1]                       |
| Chemical Resistance                    | Permanent resistant at +23°C: water, seawater, alcalic water and wastewater, deicing salt solutions.  Temporarily resistant against: diluted anorganic alcalies and mineral acids, mineral oils.  PCV-P waterbars are not compatible with bitumen. |  |
| Ambient Maximum Temperature of Liquids | Pressurised water<br>Non-pressurised water   | -20°C min. / +40°C max.<br>-20°C min. / +60°C max. |

## SYSTEM INFORMATION

| System Structure | Suitable for welding with all other PVC-P based Sika Waterbar® types. |  |
|------------------|---|--|
|                  | Fixing of SikaFuko® injection hoses: Circlips                         |  |

## **APPLICATION INFORMATION**

| Ambient Air Temperature | +5°C min. / +35°C max. |  |
|-------------------------|------------------------|--|
|-------------------------|------------------------|--|



#### APPLICATION INSTRUCTIONS

#### **APPLICATION METHOD / TOOLS**

#### Application:

The waterbars are installed flush with the external face of the concrete. It should be carefully fixed in the formwork before concreting. The external waterbar should be aligned and installed on the waterproofing substrate as centrally as possible to the expansion joint.

#### Welding:

The specific welding parameters must be adjusted and checked on samples prior to the welding work. A minimum ambient temperature of +5 °C and dry weather conditions are required for welding on-site. Sika Waterbar® DF AT can be connected by butt welding with suitable welding equipment. The welding edges are melted in the process and fused permanently together whilst in the plastic state.

#### Protection of exposed waterbars on site:

The waterbars should be protected from damage until they are fully embedded into the concrete.

The waterbar and the joint must be cleaned before concreting.

## **LIMITATIONS**

- PVC-P waterbars are not compatible with bitumen.
- The quality of the joint sealing depends on the fully enclosure of the waterbar with concrete. In order to obtain a qualitative embedding, gravel nests have to be avoided.
- For a watertight building, attention must be paid to a closed waterbar-system.

## **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.

#### LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

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## **ECOLOGY, HEALTH AND SAFETY**

#### REGULATION (EC) NO 1907/2006 - REACH

This product is an article as defined in article 3 of regulation (EC) No 1907/2006 (REACH). It contains no substances which are intended to be released from the article under normal or reasonably foreseeable conditions of use. A safety data sheet following article 31 of the same regulation is not needed to bring the product to the market, to transport or to use it. For safe use follow the instructions given in this product data sheet.Based on our current knowledge, this product does not contain SVHC (substances of very high concern) as listed in Annex XIV of the REACH regulation or on the candidate list published by the European Chemicals Agency in concentrations above 0.1 % (w/w)

#### **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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