

## SYSTEM DATA SHEET

# Sikadur-Combiflex® SG System

High-performance joint and crack sealing system

### DESCRIPTION

Sikadur-Combiflex® SG System is a versatile, high-performance joint and crack sealing system for construction joints, movement or expansion joints, connection joints and cracks. The system allows variable and high levels of movement in one or more directions while maintaining a watertight seal. It consists of a waterproofing tape which is based on modified, flexible polyolefin (FPO). The System has advanced adhesion properties and is available in 1 mm and 2 mm thicknesses. Various Sikadur® epoxy adhesives, specially designed for different applications and conditions, are used to bond the tape.

### USES

The System is used for sealing:

- Movement joints
- Construction joints
- Pipe penetrations
- Cracks
- Building components where differential settlement is expected

The System is used for sealing joints and cracks in many different structures and applications, such as:

- Tunnels
- Culverts
- Hydroelectric power plants
- Sewage treatment plants
- Basements and other below-ground structures
- Water-retaining structures
- Drinking water reservoirs
- Swimming pools

### CHARACTERISTICS / ADVANTAGES

- Versatile system suitable for many difficult applications
- Very good crack-bridging ability
- No activation on site required
- Good resistance to specific chemicals
- Easy to install
- Good resistance to ageing
- Very good resistance to permanent UV exposure
- Good resistance to root penetration
- Wide service temperature range
- Different grades of adhesive available
- Free from plasticisers
- Hot air weldable
- Approved for contact with drinking water

### APPROVALS / CERTIFICATES

- Water Regulations, Sikadur Combiflex SG Jointing System, using Sikadur 31DW Rapid, No. DWI 56.4.1124
- Water Regulations NSF/ANSI 61, Sikaflex®-1a, UL, Report No. FDNP.MH17464

## SYSTEMS

### System structure

The System consists of a modified flexible polyolefin (FPO) waterproofing tape which is affixed with a Sikadur® epoxy adhesive.

Select System components solely from the listed tape and adhesive options.

Flexible polyolefin tapes	Sikadur-Combiflex® SG-10 P Sikadur-Combiflex® SG-20 P
Flexible polyolefin tapes with red middle strip	Sikadur-Combiflex® SG-10 M Sikadur-Combiflex® SG-20 M
Sikadur® epoxy adhesives	Sikadur-Combiflex® CF Adhesive Normal Sikadur-Combiflex® CF Adhesive Rapid Sikadur®-31 DW Sikadur®-31 DW Rapid

## TECHNICAL INFORMATION

### Chemical resistance

Sikadur-Combiflex® SG System is resistant to aggressive conditions in natural groundwater and soil, as well as lime water, cement water, seawater, salt solutions, domestic sewage, bitumen (according to EN 1548) and bitumen emulsion coatings.

Contact Sika Technical Services for additional information.

### Service temperature

Maximum	+40 °C
Minimum	-30 °C

### Elongation at maximum tensile force

≥ 650 % (EN 12311-2)

<b>Sikadur Combiflex® SG Tape</b>	<b>Maximum permissible permanent elongation</b>
Sikadur-Combiflex® SG-20 M Sikadur-Combiflex® SG-20 P	< 25 % of non-adhered tape width
Sikadur-Combiflex® SG-10 M Sikadur-Combiflex® SG-10 P	< 10 % of non-adhered tape width

## APPLICATION INFORMATION

### Ambient air temperature

Maximum	+40 °C
Minimum	+5 °C

### Substrate temperature

Maximum	+30 °C
Minimum	+5 °C

Refer to the Product Data Sheet of the appropriate Sikadur® epoxy adhesives.

## BASIS OF PRODUCT DATA

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.

## FURTHER INFORMATION

- Individual Product Data Sheets for the Sikadur-Combiflex® SG tapes
- Sikadur-Combiflex® SG System - Method statement

## 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

### APPLICATION

#### IMPORTANT

##### **Strictly follow installation procedures**

Strictly follow installation procedures as defined in Method Statements, application manuals and working instructions which must always be adjusted to the actual site conditions.

#### IMPORTANT

##### **Damage to the System caused by pressure**

Positive and negative pressure may cause the exposed section of the Sikadur Combiflex® SG Tape to stretch, thereby reducing its movement capability.

1. When exposed to positive water pressure, support the Sikadur Combiflex® SG Tape by applying either a hard foam or a joint sealant into the joint.
2. When exposed to negative water pressure, support the Sikadur Combiflex® SG Tape with a steel plate fixed on one side.

#### IMPORTANT

##### **Damage to the System caused by excessive mechanical exposure**

If subjected to mechanical damage, the exposed section of the tape may tear, resulting in reduced movement capability and loss of water tightness.

1. Protect the exposed section of the tape from mechanical damage.

##### **Incorrect joining techniques**

Note: Sikadur Combiflex® SG Tape cannot be connected to the Sikaplan® WT, Sikaplan® WP or Hypalon based membranes by hot air welding. Treating the Sikadur Combiflex® SG Tape with a solvent prior to joining will not improve either the welding or adhesion properties.

##### **SELECTION OF TAPE SIZE**

Select the correct tape size (thickness and width) and a suitable Sikadur® adhesive depending on the required performance. Refer to the individual Product Datasheets for further information.

## GENERAL INSTALLATION PROCEDURE

1. **IMPORTANT** The final texture of the substrate must be open-textured and gripping. Prepare cementitious substrates mechanically using abrasive blast cleaning, planing or scarifying equipment to remove cement laitance.
  2. Vacuum the substrate to remove all dirt and contamination prior to application.
  3. Weld Sikadur-Combiflex® SG tape connections and overlaps
  4. Mix the 2-part Sikadur® adhesive and apply on the sides of the joint or crack by brush, trowel or spatula
  5. Firmly press Sikadur-Combiflex® SG tape into the adhesive using a roller
  6. Apply Sikadur® adhesive on top of the Sikadur Combiflex® SG tape
  7. For Sikadur-Combiflex® SG M type tapes remove the red middle strip while the adhesive is still wet
- For detailed application instructions reference must be made to the following document: Sikadur-Combiflex® SG System - Method statement

## LOCAL RESTRICTIONS

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

## 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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#### **System Data Sheet**

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