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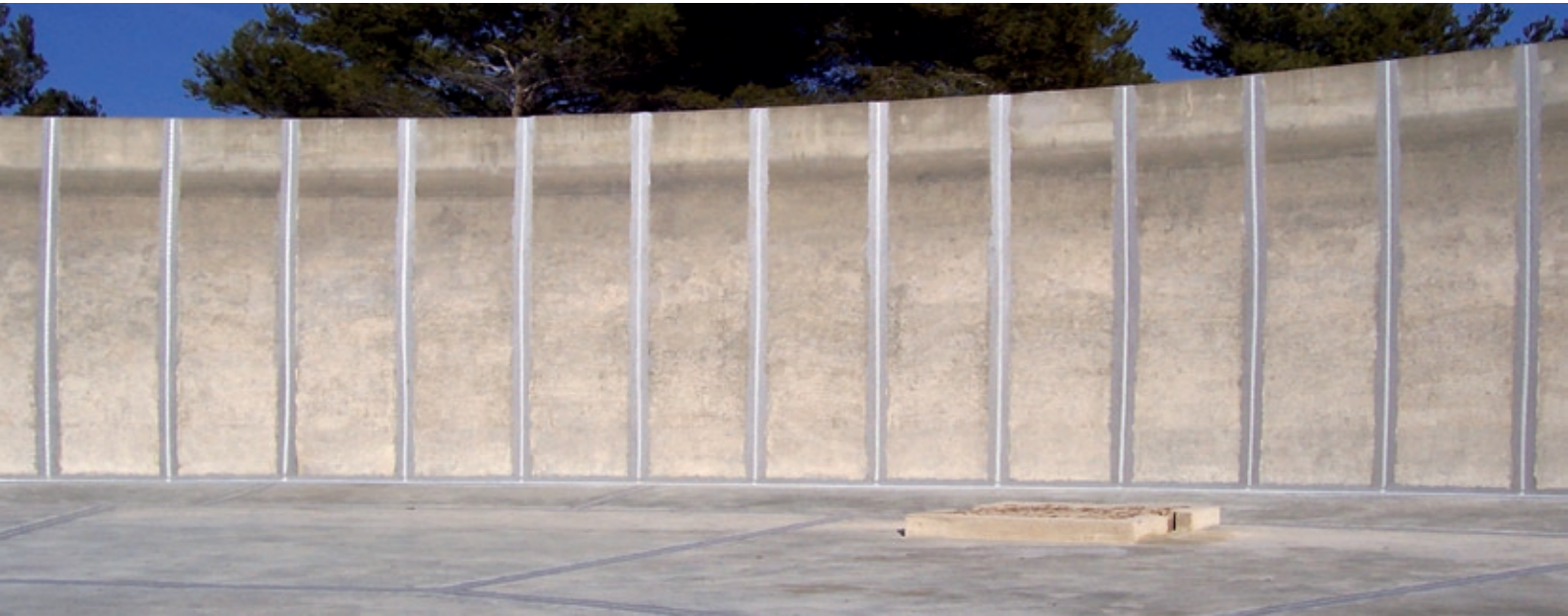
Sikadur-Combiflex[®] SG System High Performance Joint and Crack Waterproofing System



Innovation & Consistency | since 1910

Sikadur-Combiflex® SG System

High Performance Joint and Crack Waterproofing System



Sikadur-Combiflex® SG System

The **Sikadur-Combiflex® SG** system is the second generation development of the globally proven **Sikadur-Combiflex®** with even improved performance such as advanced adhesion properties and drinking water approval. The unique system consists of the **Sikadur-Combiflex® SG** tape and the **Sikadur®** adhesives. It is widely used as joint waterproofing in watertight concrete structures.

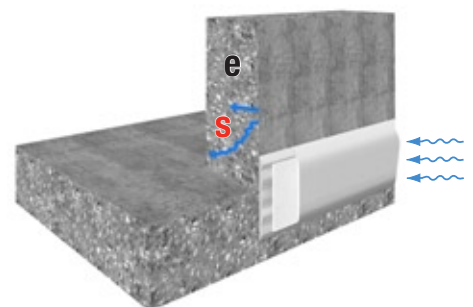


Main Advantages

- Waterproofing of joints with extreme movements
- Easy to install and adjust to complicated construction details
- Excellent adhesion to different substrates
- Resistant to high water pressure
- Crack sealing system
- Easy to control and repair

Function:

- Blocking the path of water penetration
- Increased length of water penetration
- Fully bonded to the concrete preventing underflow



$$s >> e$$

e = water penetration (EN 206)

s = increased length for water penetration





Typical Applications



Basements

- High water tightness and durability
- Easy to control/repair
- Independent of concreting steps
- High joint movement capacity



Refurbishment

- Crack sealing
- Resistance to negative water pressure



Infrastructure

- Bridges
- De-icing salt resistance
 - UV resistant
- Tunnel Ventilation Ducts
- Airtight
 - Flexible to joint tolerances



Sewage Treatment Plants

- Resistance to sewage water
- Good abrasion resistance
- Independent of concreting steps
- High joint movement capacity



Drinking Water

- Approved in contact with drinking water
- Long-term water resistance
- Easy to control/repair



Ground Water Protection

- Chemical resistant
- High safety of environment
- Impermeable



Swimming Pools

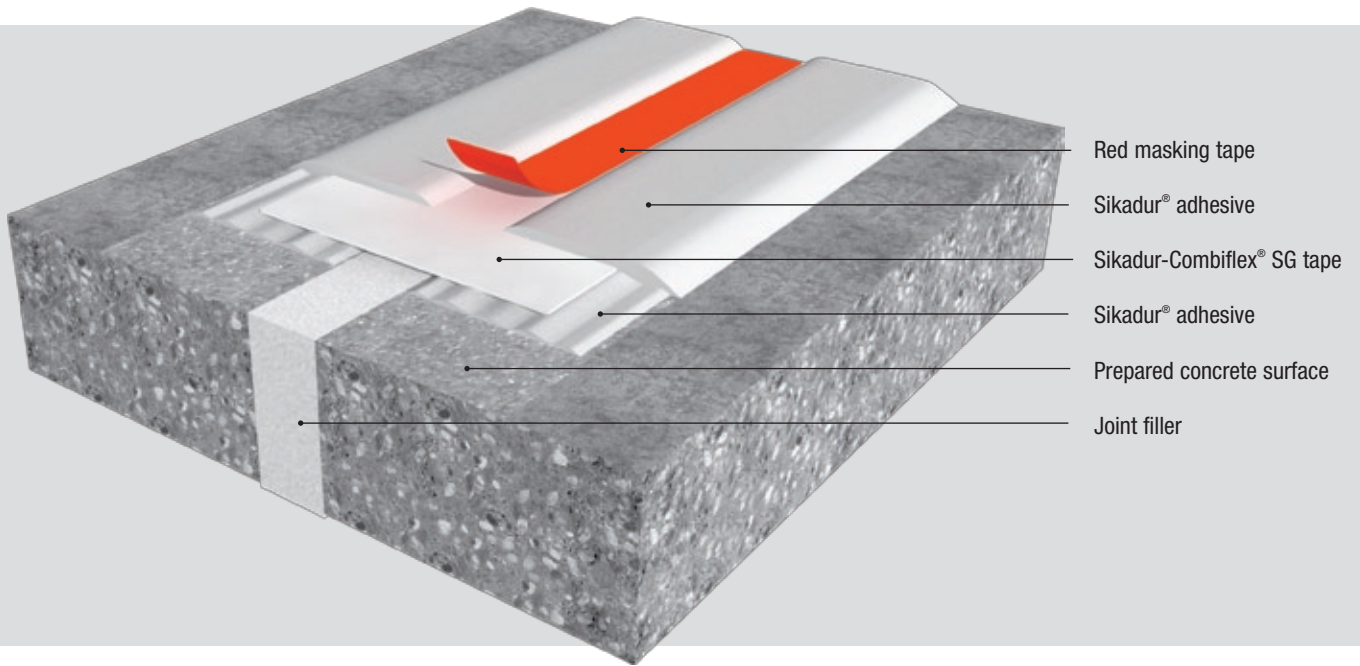
- Resistance to ozone, chlorine and UV
- Good cleaning ability
- Non abrasive to skin



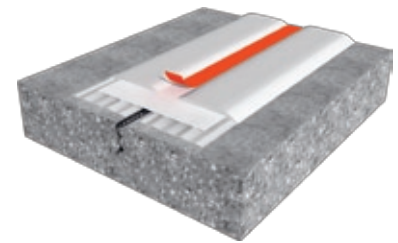
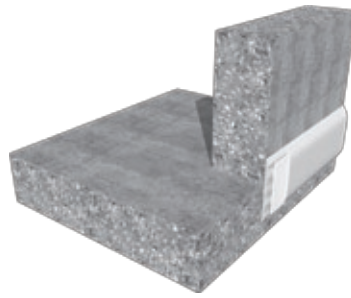
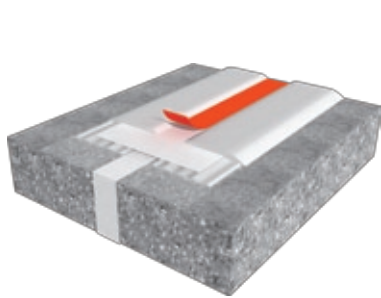
Facade Joints

- High joint movements
- Overpaintable (adhesive)
- Weather resistant

Sikadur-Combiflex® SG System



Where to use?



Expansion Joints

- Temperature dilatation
- Construction settlements
- Material connection
- Building connection

Construction Joints

- Connection between concrete steps
- Floor-to-wall Connection
- Different material connection
- Inside-outside application

Cracks Repair

- Construction settlements
- Shrinkage
- Thermal influences
- Structural overload



Sikadur® Adhesives

To achieve a watertight, durable connection between **Sikadur-Combiflex® SG** tape and the substrate **Sikadur®** adhesives are used.



Main Advantages

- Excellent adhesion to many substrates
- Available with normal and rapid hardening grades of adhesive

Sikadur®-Combiflex® CF Adhesive

- Optimum workability and finish
- Provides smooth surface

Sikadur®-31 CF

- Higher layer thickness is required

Sikadur®-31 DW

- Drinking water approval

Sikadur®-33

- Mechanical mixing and dosage with **Sika® CoMix-101**
- Very suitable for high volumes

Sikadur-Combiflex® SG Tape

Sikadur-Combiflex® SG is a flexible prefabricated waterproofing tapes based on modified flexible Polyolefin (FPO) with advanced adhesion.



Main Advantages

- **Advanced adhesion, no activation on site required**
- Can be used in contact with potable/drinking water
- High water pressure resistance
- High durability and chemical resistance
- UV- and weather resistant
- Root resistance
- Plasticizer free

Sikadur-Combiflex® SG type P

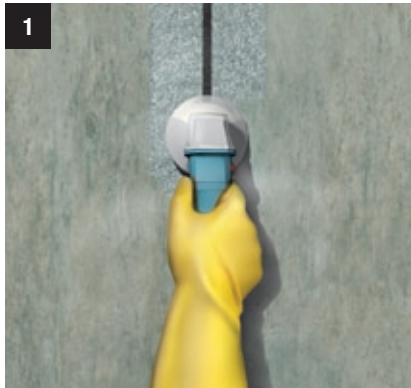
	Sikadur-Combiflex® SG-10 P	Sikadur-Combiflex® SG-20 P
Tape thickness [mm]	1.0	2.0
Tape width [mm]	100, 150, 200, 250, 300 400, 500, 1000, 2000	150, 200, 250, 300 400, 500, 1000, 2000
Tape length [m]	25	25

Sikadur-Combiflex® SG type M

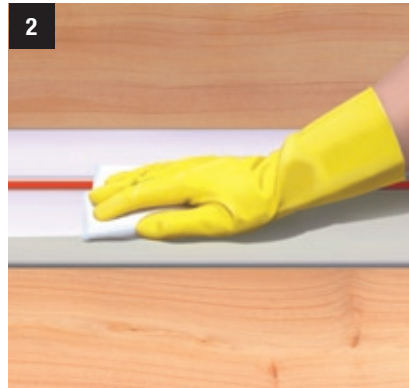
(with red masking tape for easier application in expansion joints)

	Sikadur-Combiflex® SG-10 M	Sikadur-Combiflex® SG-20 M
Tape thickness [mm]	1.0	2.0
Tape width [mm]	100, 150, 200, 250, 300	150, 200, 250, 300
Tape length [m]	25	25

Sikadur[®]-Combiflex[®] SG System - Application



1
Substrate preparation by means of sandblasting, grinding etc., followed by vacuuming.



2
In case of dirt clean the surface of the **Sikadur-Combiflex[®] SG** tape with a dry or wet cloth. Use water and **no solvent** for cleaning.



3
Use masking strips to cover the joint.



4
Mix **Sikadur[®]-Combiflex[®] CF** adhesive components A and B for a minimum of 3 minutes until the mix is homogeneous.



5
Apply the **Sikadur[®]-Combiflex[®] CF** adhesive on the left-hand and the right-hand side of the joint. Then remove masking strip.



6
Press the **Sikadur[®]-Combiflex[®] SG** tape without trapping air into the adhesive by using a suitable roller. The adhesive should be squeezed out on both sides by ~ 5 mm.



7
Apply the **Sikadur[®]-Combiflex[®] CF** Adhesive on the tape.



8
Remove the red middle strip and the masking strips on both sides to ensure a neat and precise detail.



9
Connect tape ends by hot air welding. **Prepare the welding area by scotch brite or sand paper.** Overlap 40 - 50 mm.

Sikadur-Combiflex® SG System - Case Studies



Sihlcity-Shopping, Business, Fun and Fitness Centre Zurich, Switzerland

Project Description:

Building complex containing shopping, cinema, office accommodation etc.
Waterproofing of expansion and construction joints in the basement construction

Project Requirements:

Watertight concrete construction
Waterproofing of joints in areas of ground-water pressure

Sika Solution:

Sealing of the expansion and construction joints with the **Sikadur-Combiflex®** system against groundwater pressure

Tunnel du Mont Blanc, France

Project Description:

Extensions of the franco-italien Tunnel such as technical gallery etc

Project Requirements:

Watertight joint sealing system
Flexibility to joint tolerances

Sika Solution:

Sealing of the joints with the **Sikadur-Combiflex®** system, protection of technical installations from water

Water Tank, Riyadh, Saudi Arabia

Project Description:

Waterproof construction for collection of extra water for emergency purpose

Project Requirements:

Long-term water resistant
High joint movement capacity

Sika Solution:

Sealing of the 25 km joints with the **Sikadur-Combiflex®** system

Sika Full Range Solutions for Construction

Concrete Production



Sika® ViscoCrete®
Sika® Retarder®
Sika® SikaAer®

Waterproofing



Sikaplan®, Sikalastic®
Sika® & Tricosal® Water-stops
Sika® Injection Systems

Flooring



Sikafloor®
SikaBond®

Corrosion and Fire Protection



SikaCor®
Sika® Unitherm®

Concrete Repair and Protection



Sika® MonoTop®
Sikagard®
Sikadur®

Structural Strengthening



Sika® CarboDur®
SikaWrap®
Sikadur®

Joint Sealing



Sikaflex®
Sikasil®

Grouting



Sikadur®
SikaGrout®
Sika AnchorFix®

Roofing



Sarnafil®
Sikaplan®
SikaRoof® MTC®

Also available from Sika

Watertight Concrete Basements
 with Sika® Concrete, Jointing,
 and Injection Technology

Flexible Waterproofing of Basement
 Structures with Sikaplan®

Flexible Waterproofing of Tunnels
 with Sikaplan® Membranes

Sika® and Tricosal® Water Stops
 Waterproofing of Expansion and
 Construction Joints

Sika® Injection Systems for
 Concrete Structures

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