



Sikadur-Combiflex[®] SG System

High Performance Joint and Crack Waterproofing System



Innovation & since
Consistency | 1910

Sikadur-Combiflex® SG System

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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.

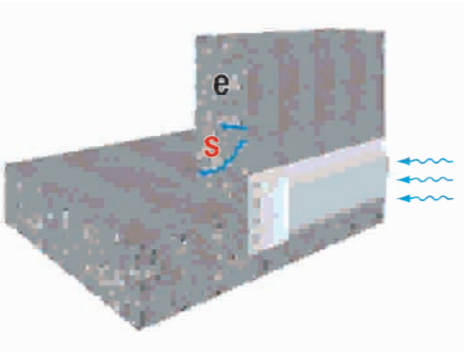


Main Advantages

- 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



Infrastructure

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



Drinking Water

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



Swimming Pools

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



Refurbishment

- Crack sealing
- Resistance to negative water pressure



Sewage Treatment Plants

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



Ground Water Protection

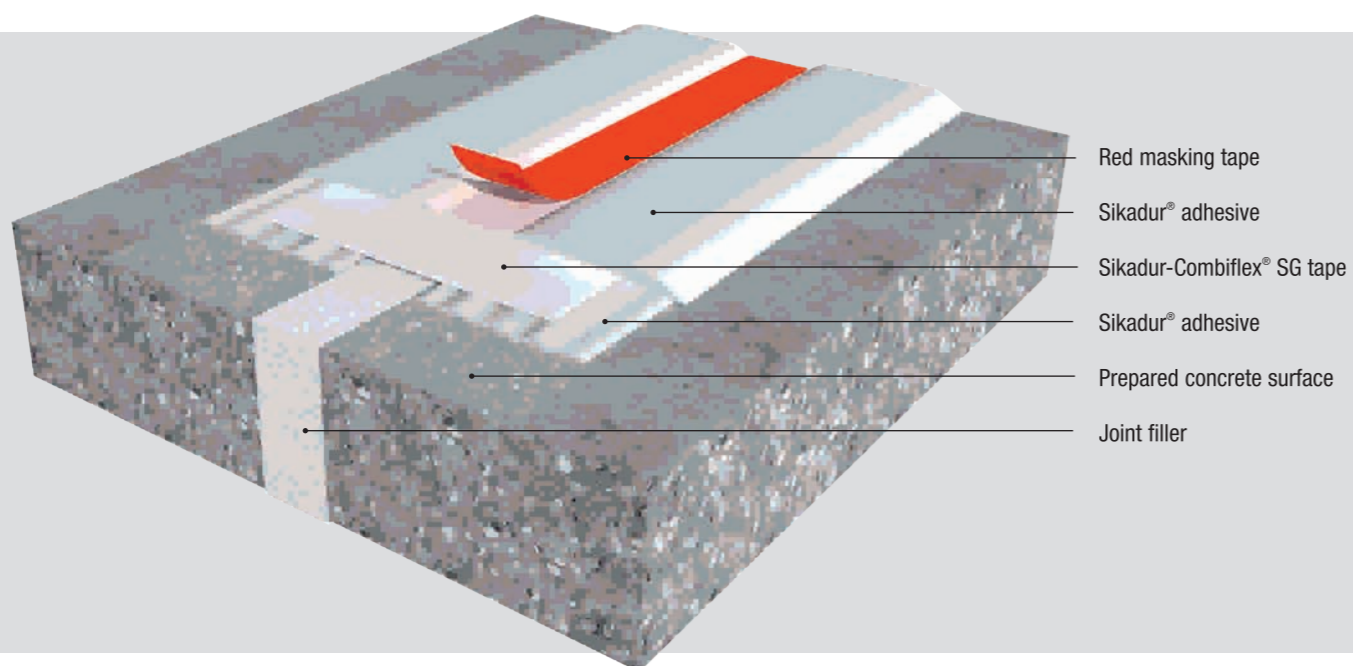
- Chemical resistant
- High safety of environment
- Impermeable



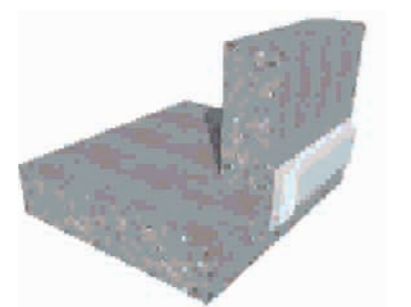
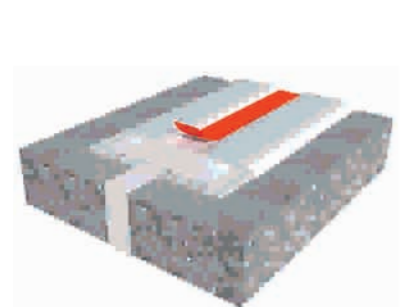
Facade Joints

- 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®-31 C

- Optimum workability and finish
- Provides smooth surface
- Higher layer thickness is required



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

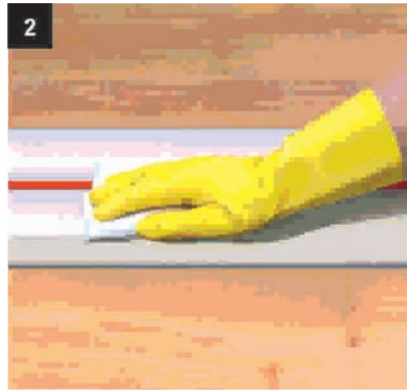
(with red masking tape for easier application in expansion joints)

	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
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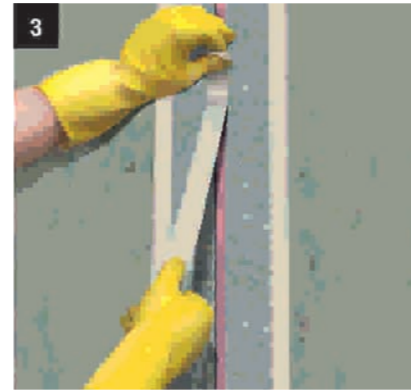
Sikadur®-Combiflex® SG System - Application



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



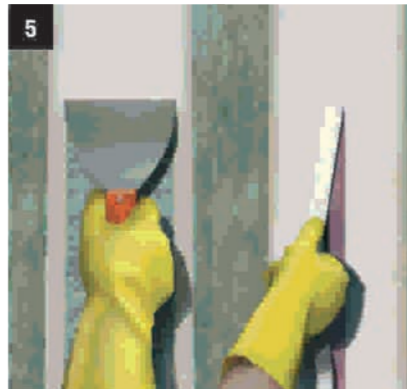
2
In case of dirt clean the surface of the **Sikadur-Combiflex® SG** tape with a dry or wet cloth. Use water and **no solvent** for cleaning.



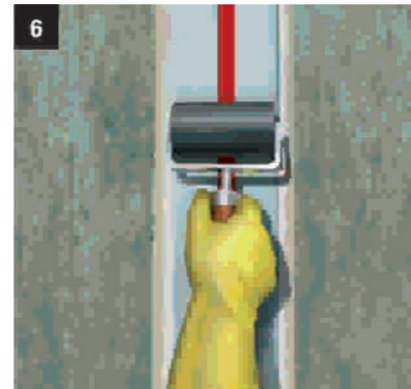
3
Use masking strips to cover the joint.



4
Mix **Sikadur®-31 C** components A and B for a minimum of 3 minutes until the mix is homogeneous.



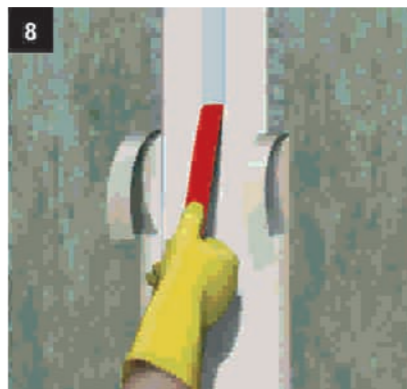
5
Apply the **Sikadur®-31 C** adhesive on the left-hand and the right-hand side of the joint. Then remove masking strip.



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®-31 C** 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 roughing the surface by scotch brite or sand paper.** Overlap 40 - 50 mm.

Sikadur-Combiflex® SG System - Case Studies



01 Project

Expansion joint between two block of a 35 storied tower, at South City, Kolkata

Problem

- Huge difference of gap size ranging from 100mm to 350mm
- Huge movement expected during service life

Sika Solution

Application of the **Sikadur®-Combiflex® SG System** with the following advantages

- Different size gives a perfect joint treatment
- Long term protection against exposed weather & UV
- Easy application
- Good movement accommodating strip as per requirement



02 Project

Expansion Joint treatment at underground water reservoir under BMC, Mumbai

Problem

- Leaking problem with the existing system
- Irregular gap size

Sika Solution

Application of the **Sikadur®-Combiflex® SG System** with the following advantages

- Externally applied treatment, without removing existing system
- Most suitable for irregular joint
- Extended life span
- Easy application



03 Project

Under ground pedestrian subway connecting Kamraj International Airport & Tirusulam Railway Station in Chennai

Problem

- Strong influence on joint movement like vibration, heavy traffic movement
- The joint treatment was from negative side

Sika Solution

Application of the **Sikadur®-Combiflex® SG System** with the following advantages

- Can accommodate various joint movement influences like lateral movement, shear movement etc.
- Can be used under negative water pressure
- Extended life span
- Easy application

National References :

East Zone:

- South City Residential Building, Kolkata
- Rabindra Bharati University, Kolkata
- HREL, Haldia
- Kolkata Railway Terminal, Kolkata
- Infinity Building, Kolkata
- JRD Tata Sports Complex Swimming Pool & Stadium, Jamshedpur
- Reserve Bank of India, Kolkata

North Zone:

- Ishant Systems, Noida
- Great India Mall, Noida
- Logic Techno Park, Noida
- Thygarajan Stadium, New Delhi
- Honda Siel Car, Bhiwadi
- Thappar Engineering College, Patiyala
- Panacea Bio Tech, Baddi
- ISTA Hotel, Amritsar
- Cadila Pharmaceutical, Jammu

South Zone:

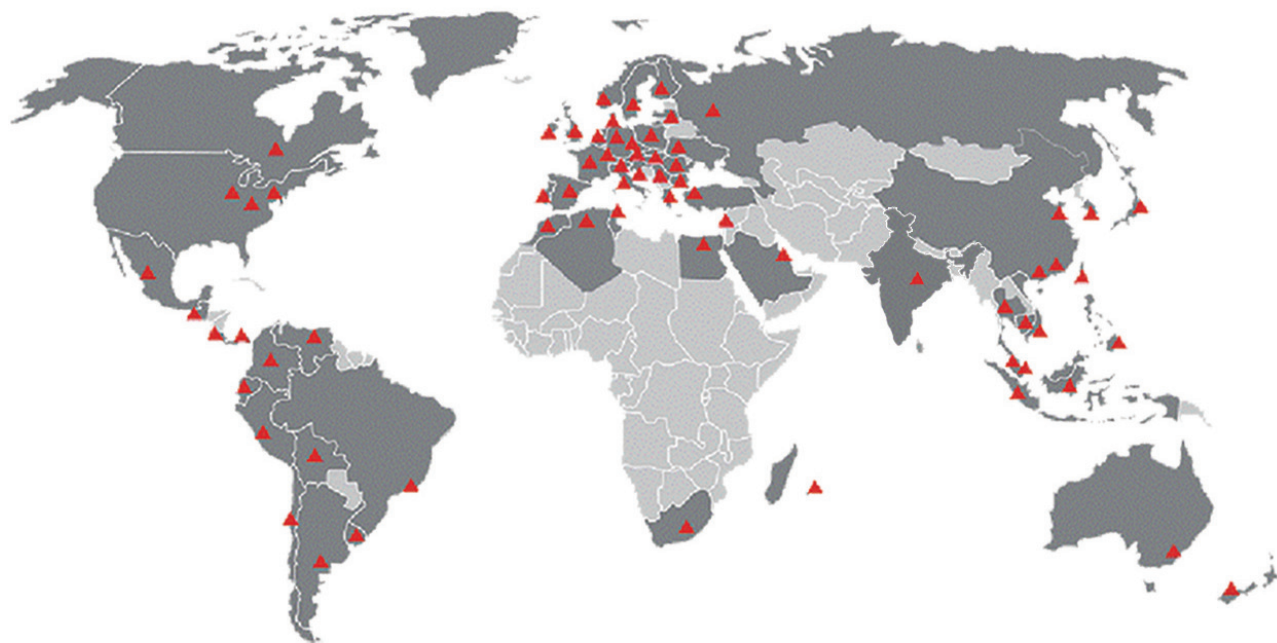
- Tirusulam Pedestrian Subway, Chennai
- Alpha City IT Park, Chennai
- Olympia Tech Park, Chennai
- Pallavaram Pedestrian Subway, Chennai
- Biocon, Bangalore

West Zone

- Basanth Lawn Thane Housing Project, Thane
- Kamat Hotel, Goa
- Kanakia Projects, Thane
- Seth Developers - Simplex Prabhadevi, Mumbai
- Reliance Corporate Office, Ghansoli, Navi Mumbai
- BMC Water Reservoir Beravalli, Andheri Mumbai
- Inorbit Mall, Vashi, Navi Mumbai
- K Raheja Projects, Goregaon, Mumbai
- Bharat Diamond Bores, BKC, Mumbai
- Reliance Petro Chemical Limited, Jamnagar

.....and many more

Sika – global knowledge with a local presence



Sika Branch Offices : Ahmedabad, Bangalore, Chandigarh, Chennai, Cuttack, Hyderabad, Kolkata, Mumbai, Noida, Pune & Siliguri

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Please consult the Product Data Sheet
prior to any use and processing.



An ISO 9001:2008 Company



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