



SIKABIT[®] W-15 WET-BONDED WATERPROOFING MEMBRANE

BUILDING TRUST



BASEMENT WATERPROOFING



INTRODUCTION

Many different products are available for basement waterproofing. Considering ideal jobsite conditions (perfect substrate quality and substrate preparation; professional installation etc.) the various systems will perform well within the limits of the selected product technology.

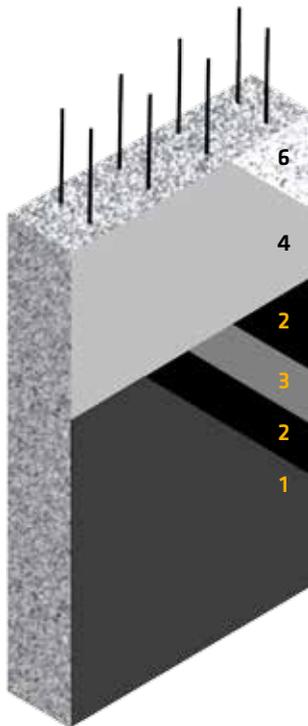
CHALLENGES

Jobsite conditions are never ideal. To achieve the required substrate preparation level is most of the time difficult, if not impractical or even impossible. The challenges include:

- Wet substrate due to rain or leakages
- Dirty or dusty substrate due to spillages from other processes
- Un-even substrates due to poor formwork quality
- Limited space and access to the waterproofing workplace
- High time pressure

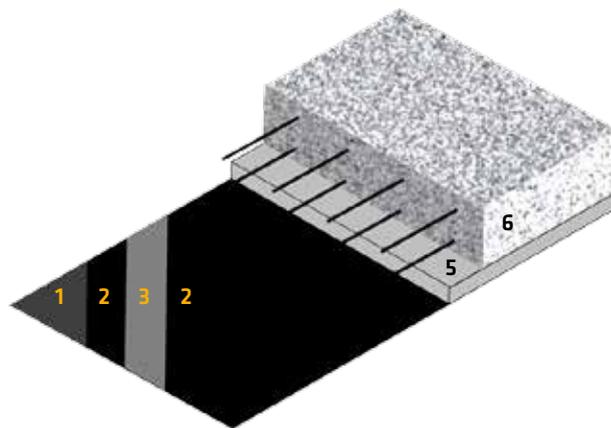
WHAT IS SIKABIT® W-15?

SikaBit® W-15 is a fully bonded waterproofing membrane system designed to perform on typical basement jobsites.



SikaBit® W-15 is a sheet membrane waterproofing system consisting of a cross laminated HDPE carrier film laminated with a modified bitumen based adhesive on both surfaces. Due to the double-sided structure the **SikaBit® W-15** system can be installed single or (partially) double layered and does not require any accessories such as tapes and pastes etc.

In case of pre-application (foundation slabs), the **SikaBit® W-15** is wet-bonded upwards to the concrete screed. In case of post-application (retaining walls, podiums), the **SikaBit® W-15** is wet-bonded to the structural concrete with **SikaBit® W-1** mortar.

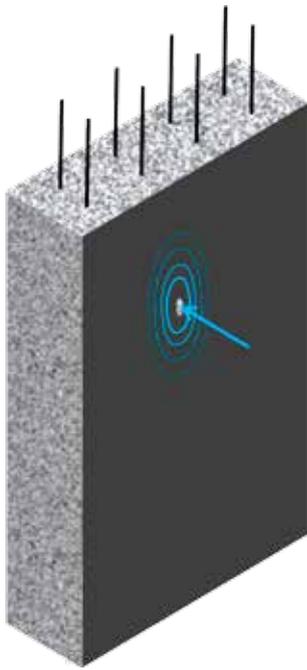


BUILD-UP

1. Release liner
2. Modified bitumen adhesive
3. Cross laminated HDPE carrier film
4. **SikaBit® W-1** mortar
5. Concrete screed
6. Structural concrete

HOW DOES SIKABIT® W-15 WORK?

SikaBit® W-15 works based on an unique combination of sheet membrane and mortar technology to achieve a full surface bonding between the membrane and the structural concrete.



During the wet-bonding process the **SikaBit® W-15** membrane reacts with the fresh concrete screed or the **SikaBit® W-1** mortar to form a strong, permanent chemical bond.

The wet-bonding method ensures full surface bonding of the **SikaBit® W-15** membrane to the structural concrete by eliminating irregularities in the concrete surface profile such as blow-holes, voids, honeycombs, recesses etc. Full surface bonding is crucial to stop lateral water underflow in case of localized damage to the membrane. In case of localized damage to the membrane of the **SikaBit® W-15** membrane the leakage is limited to the same area only allowing for safe localization and subsequent rectification by injection grouting.

TESTED AND APPROVED

The strong, permanent bond between the **SikaBit® W-15** membrane and the concrete structure is unmatched by conventional torch-applied or self-adhered bitumen membrane systems.



WHERE CAN SIKABIT® W-15 BE USED?

SikaBit® W-15 can be used to waterproof reinforced concrete basement and other below ground structures.



FOUNDATION SLABS

SikaBit® W-15 membrane is applied after placement of the lean concrete and boded upwards to the concrete screed (horizontal and sloped areas). The double sided membrane allows for fast and easy detailing in case of pits, pile heads, sunken beams etc.



RETAINING WALLS

SikaBit® W-15 membrane is applied to the cast reinforced concrete walls bonding inwards to the reinforced concrete wall. The **SikaBit® W-1** mortar allows for fast and easy installation with minimum surface preparation.



PODIUMS

SikaBit® W-15 membrane is applied to the cast reinforced concrete podium bonding downwards to the reinforced concrete podium. **SikaBit® W-1** mortar allows for fast and easy installation with minimum surface preparation.

ADDITIONAL SIKA WATERPROOFING COMPONENTS



Sika® Hydrotite CJ-Type

Hydrophilic swelling profiles for construction joints as additional back-up for complex details.



SIKA® WATERBARS

Internal and external PVC water-stops for regular construction and movement joints.



SIKADUR® COMBIFLEX SG SYSTEM

Adhesive tape system for uneven sized construction and movement joints.

WHAT ARE THE ADVANTAGES?

SikaBit® W-15 has relevant advantages in terms of installation and performance compared with conventional modified bitumen membranes.

FAST EXECUTION

SikaBit® W-15 can be applied after de-molding of the formwork (retaining walls) or once the concrete reaches its initial strength (podium). There is no need to wait for 7 to 28 days curing of the reinforced concrete prior to application.

Backfilling can start the very next day after the application.

MINIMUM SURFACE PREPARATION

Prior to the application of **SikaBit® W-15** membrane the concrete surface need NOT to be "smooth, dry and dust-free". Only basic cleaning and watering is needed cutting down the time required for surface preparation to a minimum.

Also the intervals between rain showers (during the rainy season for example) can be efficiently used for installation works.

ONE-MEMBRANE

The same **SikaBit® W-15** membrane can be used to waterproof the foundation slab, the retaining wall and the podium slab including all the detailing.

OTHER ADVANTAGES

- No need for special equipment
- Double layer option
- Excellent initial and long term bond
- High tear resistance
- High impact resistance
- Crack-bridging ability
- Resistant to chemical corrosion

FULLY BONDED

SikaBit® W-15 membrane is always bonded towards the reinforced concrete structure ensuring the waterproofing function also in case of substrate settlement etc.

PERFORMANCE SPECIFICATION

Property	Test Method	SikaBit® W-15
Thickness	ASTM D3767 A	1.5 mm
Tensile strength	ASTM D412 *)	4 N/mm
Elongation	ASTM D412 *)	300%
Lap peel strength (+23 deg C)	ASTM D1876 *)	700 N/m
Resistance to hydrostatic head	ASTM D5385	70 m
Low temperature flexibility (-25 deg C)	ASTM D1970	Unaffected
Low temperature crack cycling (-25 deg C)	ASTM C836	Pass

*) modified

HOW IS SIKABIT® W-15 INSTALLED ?

SikaBit® W-15 can be safely installed without need for special equipment by certified waterproofing applicators.



PROJECT REFERENCES

1. Shenzhen Bay Technology Ecological Park	200,000m ²	11. Yangzhou Universal Financial City	80,000m ²
2. Guangzhou Youshanmeidi Park	30,000m ²	12. Chongqing Wulong Fairy Street	50,000m ²
3. Guangdong Grand Built	70,000m ²	13. Chongqing Xinhe Beibing Rd project	123,000m ²
4. Guangdong New View Heights	30,000m ²	14. Jiangsu Yanghe Winery	60,000m ²
5. Hainan Endlessly Vast Xingcheng City	175,000m ²	15. Henan Trendy Grand View Garden	50,000m ²
6. Haikou CIRD	60,000m ²	16. Shanghai Pudong Expo	17,000m ²
7. Anhui Hexian Country Garden	130,000m ²	17. Shanxi Zhongzeyuan District	70,000m ²
8. Anhui Wuyi Country Garden	60,000m ²	18. Heilongjiang Jin Jue Vientiane	50,000m ²
9. Fujian Wanhao International	100,000m ²	19. Nanjing Discipline Inspection Commission Bldg	50,000m ²
10. Fujian International Trade Finance Center	70,000m ²	20. Guangxi Nanning Tang Headquarters No.1	73,000m ²

SIKA FULL RANGE SOLUTIONS FOR CONSTRUCTION:



CONCRETE



WATERPROOFING



ROOFING



FLOORING



SEALING & BONDING



REFURBISHMENT

WHO WE ARE

Sika is a globally active specialty chemicals company. Sika supplies the building and construction industry as well as manufacturing industries (automotive, bus, truck, rail, solar and wind power plants, façades). Sika is a leader in processing materials used in sealing, bonding, damping, reinforcing and protecting loadbearing structures. Sika's product lines feature high quality concrete admixtures, specialty mortars, sealants and adhesives, damping and reinforcing materials, structural strengthening systems, industrial flooring as well as roofing and waterproofing systems.

Our most current General Sales Conditions shall apply.
Please consult the Data Sheet prior to any use and processing.



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