



150.000 m2 Flexobit has been applied at Hotel Atlantis



## Defining waterproofing across the world for nearly five decades.

*"From icons to infrastructure — Flexobit: the trusted non-reinforced bituminous membrane behind the region's construction landmarks."*

# FLEXOBIT

**SELF-HEALING WATERPROOFING MEMBRANE FOR FOUNDATIONS, EXPENSION JOINTS, BASEMENTS, TERRACES, ROOFS, UNDERGROUND OR MULTI-LEVEL CAR PARKS**

This is a product of Bitufa Waterproofing.

**BITUFA**  
Waterproofing  
EST. 1979



# Flexobit waterproofing

Flexobit membrane is a 196 mil (5 mm) thick, homogenous, non-reinforced SBS waterproofing membrane, that has set a new industry standard for below-grade waterproofing applications.

## What makes Flexobit waterproofing membrane unique?

Designed without reinforcement, Flexobit seamlessly conforms to any substrate, eliminating the need for cutting and significantly reducing installation time. Its SBS polymer-modified bitumen compound is engineered for superior flexibility, and longevity—making it the ideal choice for demanding construction projects.

Unlike reinforced membranes, Flexobit automatically adjusts to surfaces, ensuring exceptional waterproofing protection in foundations, basements, multi-story underground parking structures, concrete pile heads and even septic tanks. Thanks to its advanced self-healing technology, Flexobit offers high-quality waterproofing solutions.

## Key features & advantages

- First-of-Its-kind reinforcement-free membrane ensures seamless adaptability to any shape without cutting.
- 1600% elongation with full recovery.  
*Maintains integrity even under extreme stress and movement.*
- Proven SBS-modified bitumen technology.  
*Over 5 decades of successful performance in waterproofing applications.*
- Self-healing capabilities automatically seals minor punctures, maintaining waterproof integrity.
- Highly resistant to penetration effectively withstands environmental and mechanical stresses.
- Insurance backed warranty for 10 years.  
Ask Bitufa or an official distributor for your local situation.
- 3D moldable for complex structures.  
*Perfect for waterproofing corners, expansion joints, and pile heads without the need for additional detailing work.*
- Fast installation reducing labor time and costs.
- One 196 mil (5 mm) layer outperforms multi-layer systems. A single layer of Flexobit offers superior waterproofing efficiency.
- No fillers in the compound  
*Ensures long-term durability and consistent performance*

**Certified by:**



# References:

## Major projects across the world

### **Airport Vienna (Austria)**

Airport building Vienna, 301.392 ft<sup>2</sup>

### **Al Waab City (Qatar)**

Basement, 430.560 ft<sup>2</sup>

### **Atlantis The Palm Royal Tower (Dubai)**

Tanking system, 645.840 ft<sup>2</sup>

### **Bahrein City Centre**

### **Barsha Mall (Dubai)**

Flexobit system, 333.684 ft<sup>2</sup>

### **Building Co. HSB Malmo (Sweden)**

Apartment buildings Malmo, 484.380 ft<sup>2</sup>

### **City Centre Phase 2 + 3 (Qatar)**

Two phases 1.614.600 ft<sup>2</sup>

**DIFC Tunnel, Burj Lake Hotel, Emirates Towers, Shangri-La Hotel, CBD & Al Naboodah HQ, and more regional icons.**

### **Dubai International Finance Centre (DIFC)**

Tanking & foundation waterproofing, part of 1.453.140 ft<sup>2</sup> Al Murooj complex

### **Dubai Marina Mall & Hotel Apartments**

Flexobit tanking waterproofing, 538.200 ft<sup>2</sup>

### **Gaithersburg (U.S.A)**

Shopping Centre Gaithers town Plaza, 107.640 ft<sup>2</sup>

### **Happy Valley (Hong Kong)**

Hong Kong Housing society, 107.640 ft<sup>2</sup>

### **Hotel Atlantis & Atlantis Waterpark (Dubai)**

Non-reinforced Flexobit tanking system over 1.614.600 ft<sup>2</sup>

### **L'Aquila (Italy)**

Italtel Establishment, 495.144 ft<sup>2</sup>

### **Nad Al Sheba Race-course Development (Dubai)**

Grandstand, stables & facilities, 2.152.800 ft<sup>2</sup>, plus 807.300 ft<sup>2</sup> over two phases

### **Shopping Centre Bristol (UK)**

Bovis Construction, 269.100 ft<sup>2</sup>

### **Shopping Centre Lippstadt (Germany)**

Philips Pensionfund, 107.640 ft<sup>2</sup>

### **Texas (U.S.A)**

Shopping Centre Harlingen, 322.920 ft<sup>2</sup>

### **Tokyo (Japan)**

Washi Chu-Estu Board Co., 2.152.800 ft<sup>2</sup>

### **University of London (UK)**

International hall, 26.017 ft<sup>2</sup>



# Applications / Systems / Product

**Surface:** Sand

**Reinforcement:** N/A

**Compound:** SBS / Bitumen

**Underside:** HDPE burn-off film

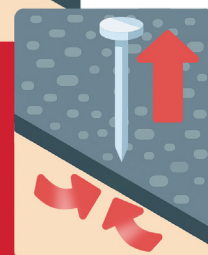
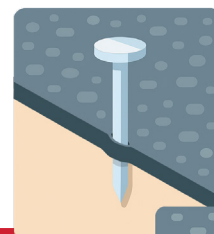
**Roll size:** 3.28 ft. x 19.6 ft. (1m x 6m)

**Roll weight:** 70 lbs. (31.75 kg)

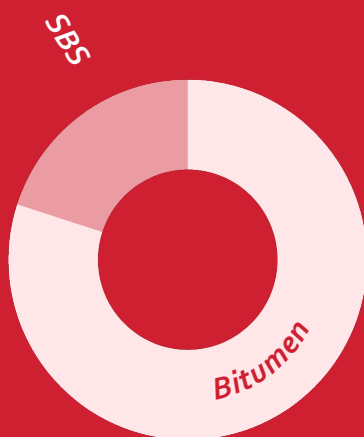
**Rolls/Pallet:** 20 & 25

**Coverage w/ 4" Lap:** 0.56 Squares (56.5 sq. ft.)

- 1600% elongation
- Mouldable in three directions (3D)
- Self-healing

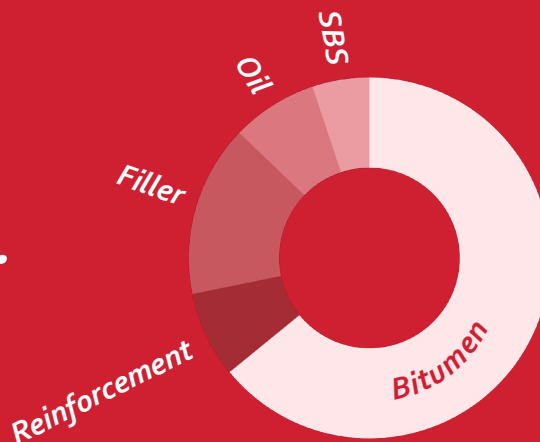


## Flexobit non-reinforced membrane



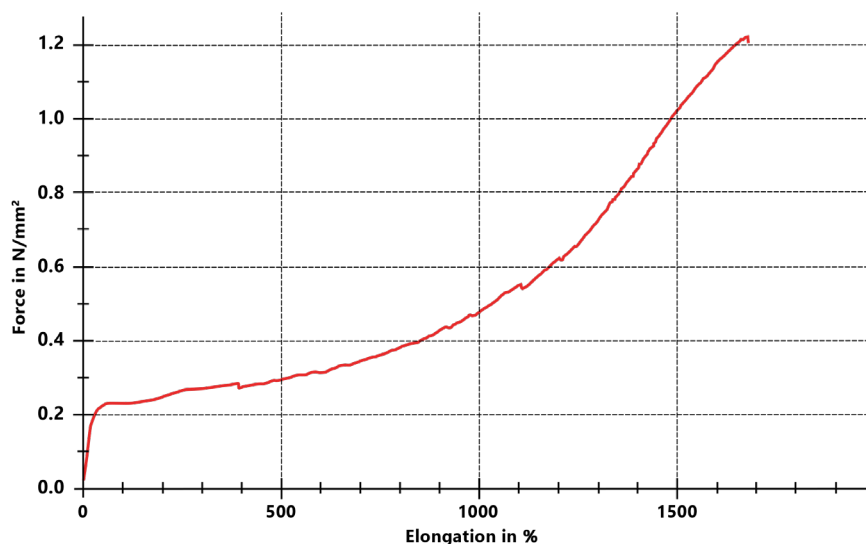
VS.

## Reinforced membrane



### Why sand as top layer?

Sand-finishing on top of the membrane is an important and unique advantage compared to regular membranes with foil on top. It provides better protection of the compound, creates better overlaps and secures maximum elongation.



## Advantages

- 196 mil (5 mm) thickness \*
- 1600% elongation with full recovery
- No reinforcement inside the membrane
- High penetration resistance
- Self-healing after puncturing
- Easy anchoring and joining to concrete structures
- 3D mouldable, which makes detailing work (corners, pi lesect.)
- Easy application: once unrolled, the overlap can be immediately sealed by propane torch
- Takes any shape without need for cutting
- No fillers added to the compound
- One layer of 5mm Flexobit is superior to two or more layers of reinforced membranes

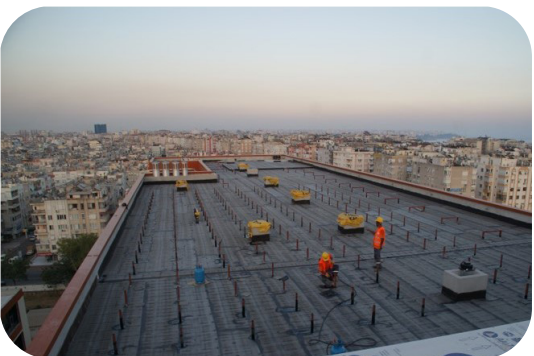
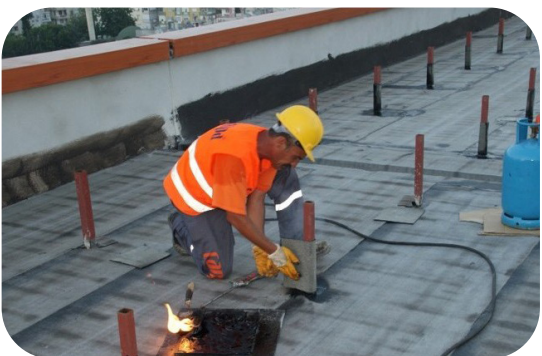
\* On request also available in 157 mil (4 mm) thickness.

## Basement / Foundation



## Pile Heads

## Expansion Joints



## Inverted Roofs

**Preparation:**

The substrate must be clean and dry; free of loose and non-compatible materials who compared to products wire filler that may compromise the bonding performance of the product. For good adhesion to (vertical) substrates, use a water based bituminous primer.

**Application Temperature**

Temperature: between 23°F till <122°F. The membrane must be clean and dry.

**Application:**

Set roll to ensure that the underside film is in direct contact with the concrete. Align roll and set into position with 4" side and 6" end laps. Using a propane torch flame, uniformly apply heat across the exposed back surface of the lap area of the membrane until the compound reaches the proper application temperature and exhibits a slight sheen. No additional cover strip is necessary.

The membrane is then protected with geotextile or polyethylene, and covered by a protective screed. At junctions, additional reinforcing strips secure the connection between horizontal and vertical surfaces.

**Vertical walls**

Vertical walls are treated in the same way but with limitations in heighth. Ask Bitufa or your local distributor for advice and additional solutions. In general, after priming, the membrane is torched into place and protected with durable boards or blockwork, particularly on retaining structures. These protective measures preserve the membrane during backfilling and construction.

Every step is carried out under strict quality control, with special care taken at seams, corners, and edges. Properprotection ensures long-term performance, while safe working practices safeguard installers.

**Torch Safety**

This product is installed using torch welding techniques. When using a propane torch welding device, Bitufa recommends that every worker using a torch should be properly trained and certified in the use and safety of torch application. Using a propane torch flame, uniformly apply heat across the exposed back surface of the lap area of the membrane until thecompound reaches the proper application temperature and exhibits a slight sheen.

**Storage Conditions**

The rolls should be protected against moisture and exposure to sunlight and be stored in horizontal position. The rolls shouldn't be stored near a source of heat.



**Application: Refer to Bitufa specifications and construction details for additional installation instructions.**



# Technical datasheet FLEXOBIT

Flexobit Membrane			
Roll Size	Coverage w/ 4” Lap	Roll Weight	Rolls/ Pallet
3.28’ x 19.6’ (1m x 6m)	0.56 Squares (56.5 sq. ft.)	70 lbs. (31.75 kg)	20 & 25
PRODUCT FEATURES			
<b>Compound:</b> SBS Polymer Blend/Asphalt	<b>Reinforcement:</b> N/A	<b>Surface:</b> Sand	<b>Underside:</b> HDPE burn-off film
Physical Properties*			
Property	Method	Results	
Thickness (avg.)	ASTM D5147	196 mil ± 10%	
Weight (lbs. / sq. ft.)	ASTM D5147	1.00	
Filler content		0%	
Ultimate Elongation, % at 0°F (MD/XMD)	ASTM D5147	372%	
Ultimate Elongation, % at 73°F (MD/XMD)	ASTM D5147	>1300% <sup>1</sup>	
Compound Stability, 215°F	ASTM D5147	Pass	
Dimensional Stability, % (MD/XMD)	ASTM D5147	<1.8% MD <1.0% XMD	
Low Temperature Flexibility	ASTM D5147	Pass @ -5°F	
Puncture Resistance, lbf	ICC-ES, AC527	Does not Puncture <sup>2</sup>	
Chemical exposure resistance (seaside chemicals)	ICC-ES, AC114	Resistant to chlorides, nitrates, and sulphates	
Moisture vapor permeance, perms	ICC-ES, AC527	< 0.1 perms	
Hydrostatic Pressure Resistance, ft H <sub>2</sub> O	ICC-ES, AC527	Pass @ 173 ft	
Adhesion to Concrete	ICC-ES, AC527	Does not Peel <sup>3</sup>	
<p>*Physical properties shown are based on data obtained under controlled conditions and are subject to normal manufacturing tolerances.</p> <p><sup>1</sup>Exceeded the range capability of the load-frame of the test equipment. In practice the elongation is closer to 1600%.</p> <p><sup>2</sup> The indication does not puncture relates to the fact that the samples have been tested until the highest length described by the norm without puncturing phenomena. This is a result of the lack of reinforcement and the homogeneity of the compound and joint.</p> <p><sup>3</sup>The indication does not peel or shear relates to the fact that the samples have been tested until the maximum capacity of the testing equipment without peeling and shearing phenomena. This is a result of the lack of reinforcement and the homogeneity of the compound and joint.</p> <p><b>Disclaimer:</b> This document is only a guide. Leadax Americas reserves the right to change, modify, update, add or remove data contained in this document as we deem necessary and without prior notice. We assume no responsibility for coverage, performance or injuries resulting from use. For more information on specific product recommendations and limitations, contact the Leadax Technical Department at 877-532-3290</p>			

## About Bitufa

At Bitufa, we specialize in advanced bituminous waterproofing solutions tailored to critical infrastructure and construction challenges. Our systems are designed to ensure long-term protection, high performance, and compliance with the strictest international standards.

We offer a range of solutions that safeguard structures from water and environmental impact – from deep basements to rooftop terraces and structural movement joints. Our solutions have been successfully implemented across the globe for over 40 years, demonstrating a proven track record of reliability and performance in the field.

## Contact information Global

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