

## Special Interest Articles:

- Self-Adhesive Waterproofing membranes.
- Roofing systems & Energy efficient construction.
- Wet areas waterproofing.

## Individual Highlights:

- Libya Build 09 4
- BituNil ISO 6  
9001- 2008 certified.

News from Egypt's leading Modified Bitumen Membranes Manufacturer-Bitunil S.A.E.

## Self-Adhesive Waterproofing Membranes

Nowadays, current global safety and environmental issues are playing a leading role in regulations affecting the choice of roofing materials and application methods. Self-adhesive membrane systems (SA) appear to address such issues, since they counter safety concerns associated with hot bitumen and torch applications & environmental issues surrounding solvent based cold adhesive applications. Self-adhesive membranes are mostly SBS polymer modified bituminous waterproofing membranes,

non-reinforced or reinforced with polyester or fiberglass, and surfaced with an option of Polyethylene, Cross laminated polyethylene, or polypropylene.

Self-adhesive membranes are easily applied by peeling off a silicon release film, covering the bottom adhesive side, and pressing firmly against the substrate using hands and a small rubber/ wooden roller.

The product is highly flexible. It accommodates structural movements, and protects sub-structures against corrosive ground water and salts.



## Why Self-Adhesive

Self-adhesive membranes are used for waterproofing both above & below grade structures. They are ideally suited for,

- Waterproofing of historical buildings where use of flames is prohibited.

- For schools, hospitals and office buildings where residents are sensitive to fumes and odors.

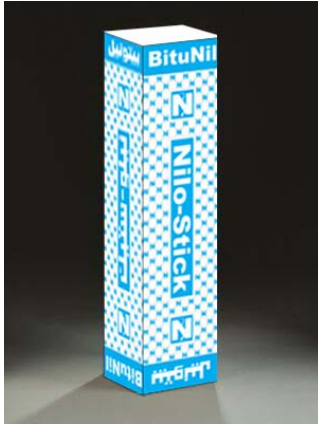
- It is also recommended for use in areas where poor ventilation conditions exist during installation, as it eliminates the use of solvent based coatings, with high volatile organic content.



SA Applied to Retaining Walls and Covered with Protection Boards.



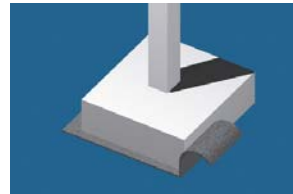
## BituNil Self-Adhesive Membranes: Nilo-Stick



Self-adhesive membranes are the new addition to BituNil's wide range of modified bitumen W.P. membranes. The "NILO-STICK" Self-Adhesive product range is designed to combine the ease of application along with superior mechanical Properties to fulfill the needs of both local and international markets.

It comprises SBS modified bituminous membranes with polyester or fiberglass reinforcement, for different waterproofing applications,

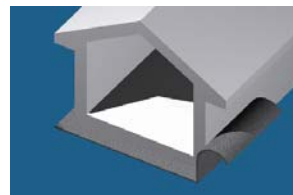
some of which are:



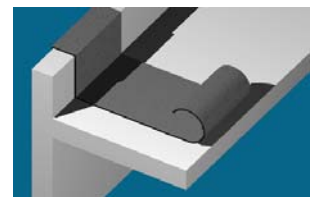
Foundations & Footings



Bridges

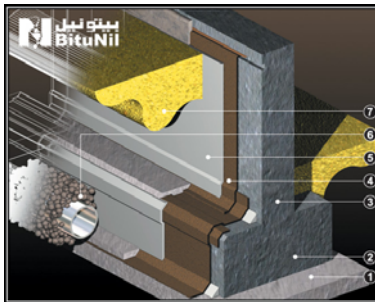


Substructures



Protected/ Exposed roofs

## Self-Adhesive Waterproofing For Structural Retaining Walls



Foundations Retaining Wall W.P. System Design:

- 7- Backfill
- 6- Drainage System
- 5- Protection Board
- 4- SA Waterproofing
- 3- RC retaining wall
- 2- Continuous Footing
- 1-Blinding Concrete

### Installation:

**A-** The self-adhesive waterproofing membrane shall be installed to the primed substrate at ambient temperature 10 °C to 40 °C.

**B-**The membrane may be installed on concrete block horizontally or vertically. Orientation will depend on ease of accessibility, and installation shall be in manageable lengths.

**C-** Reinforcing strips shall be installed at all internal and external corners and at the junctions of horizontal & vertical surfaces.

**D-** The waterproofing membrane shall be

installed on the vertical face of the concrete footing then extended onto the horizontal footing plan, and then the face of foundation wall.

**E-** Successive adjacent membranes are installed ensuring that end laps and side laps are tightly sealed by applying hand pressure and a rubber/ wooden roller.

**F-** On higher walls, membrane is applied on two or more sections, with the upper overlapping the lower by 70 to 100mm.

**G-** SA Waterproofing membrane shall terminate at grade level, and shall be protected against water infiltration by means of

metal flashing/ termination bar.

**H-** Prior to installation of protection boards, membrane shall be inspected for any tears or punctures.

**I-** Repair patches shall be used to rectify any damage, and must extend beyond the damaged area on all sides. Perimeter edges of the repair patch shall be sealed using bead of compatible mastic.

**J-** Protection board shall be applied as per manufacturer's recommendations.

## Roofing Systems & Energy Efficient Construction



**Cool Roof with white reflective coatings**

With the soaring energy cost all over the world, developing high performance sustainable buildings has become an absolute necessity.

Sustainable "Green" buildings have lower operating costs due to improved energy efficiency and reduced maintenance. There are several categories in building design that can help achieve a "Green" sustainable building.

However, roofing related points are achieved through three main categories:

**1-Sustainable Sites.**

**2-Energy and atmosphere.**

**3-Material and resources.**

**1- Sustainable sites category:**

Is about adopting "Green Roof" systems and "Cool Roof" systems. Where a "green roof" is a vegetated roof and a "cool roof" is defined to be a highly reflective, and heat emissive roof.

Subcategories include:



**Vegetated Green Roof**

**A- Storm Water Design:** A green roof system shall inhibit the flow of rain water into storm drainage system.

**B- Heat Island effects:** The term refers to urban air and surface temperatures that are higher than nearby rural areas. The purpose of this sub-category is to reduce temperature in densely populated areas. Reduced surface temperature is a "Green Building" requirement achieved by both "green Roof" and "Cool Roof" systems.

**2- Energy and Atmosphere Category:**

This category targets reducing building energy consumption.

One way of improving building envelop thermal performance is by including appropriate amount of roof insulation.

Increasing the R-Value of a typical commercial roof system could significantly reduce energy costs.



**Thermally Insulated Roof**

**3-Materials and Resources:**

Subcategories include;  
**A-Recycled Content!** Use of roofing materials that contain post consumer or post industrial content results in waist reduction and contributes to building sustainability

**B-Regional Material:** The use of building material that has manufactured within close premises of building site, will also contribute to the building sustainability.

**At BITUNIL,** we are fully aware of our responsibility to preserve our environment, and are supportive of green building practices. Starting with our eco- friendly manufactured bituminous membranes with no use for traditional hot mopping asphalt, or harmful fumes and odors, to our newly introduced "Green Roof" systems, which are not only pleasing to the eye and good for the environment but also an excellent example of energy efficient Construction.

**"Save your energy,  
you've found the right  
roof."**

*(SpecRight Program Slogan)*



**Recycling contributes  
To building sustainability**



## LIBYA BUILD 2009

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***“The event is one of the largest specialized international exhibitions in Libya.”***

The sixth international Building & Construction Exhibition was held in Libya from 18<sup>th</sup> to 21<sup>st</sup> May, at the Tripoli International Fairgrounds. More than 350 companies representing more than 30 countries participated in the Fair.

Out of the total exhibitors, one hundred and fifty five

are Libyan companies.

The Fair was inaugurated by the General Secretary of Industry, Economy and Trade along with other high ranking officials, VIP and Businessmen.

BITUNIL has been a faithful participant to the fair since its first edition in 2003, aiming to continuously enhance the

company profile in the Libyan market.

Its participation in the 2009 event was along side its main distributors in Libya "HB Group" and "Al Bairak", giving them the needed support, to be able to compete in a largely diverse and competitive market.

## BituNil Stand among its main Libyan Distributors

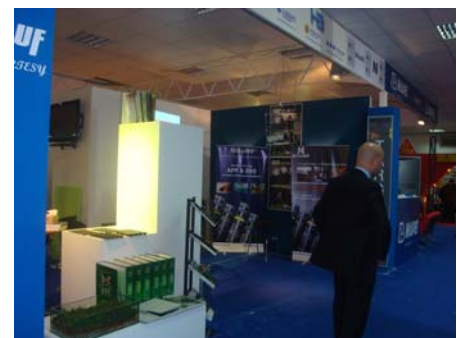


## Event attracted Professional Visitors & General Public

The event, acknowledged as one of the largest specialized international exhibitions in Libya, attracted participants from all over the world.

Some of the major participating countries were Libya, Turkey, Egypt, Tunisia, Malta, Italy, France, Jordan, Portugal and Thailand.

The fair attracted professional visitors in the field of building and construction, as well as general public seeking a variety of product choices for their consumer needs.



## Wet Areas Waterproofing: Getting it Right the 1<sup>st</sup> time

Many residential building water leaks arise from failed plumbing and/ or inadequate waterproofing systems in kitchens, bathrooms, laundry rooms, and wet areas.

Residents and home owners have frequently experienced such problems which are not only nuisance and a source of inconvenience but also a cause of damage to floors, walls, and costly finishes.

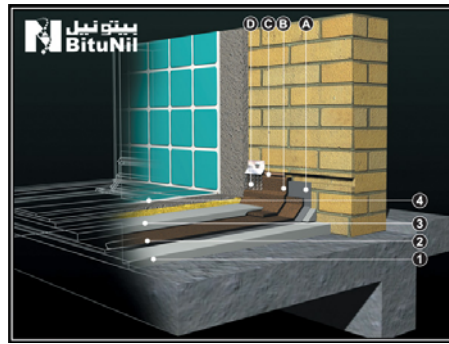
To minimize chances of water infiltration in wet and mechanical rooms, the following preventative measures must be taken:

- A- Proper selection and installation of waterproofing systems to wet areas.
- B- Remedial actions towards proper installation of quality pipes and fittings.
- C- Job must be carried out by experienced applicators,

approved/ recommended by the waterproofing system manufacturer.

- D- Inspection and testing of installed waterproofing system before successive layers application.

### BITUNIL Waterproofing System for Wet Areas: Reference (MW10)



- |                        |                    |
|------------------------|--------------------|
| 1-Leveling Screed      | a- Primer          |
| 2-Waterproofing system | b- Base Flashing   |
| 3-Protective screed    | c- Groove & Mastic |
| 4-Floor Finish         | d- Metal Lath      |



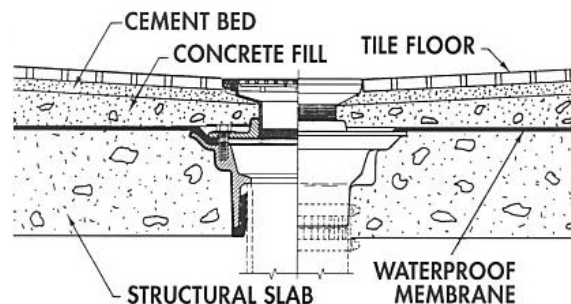
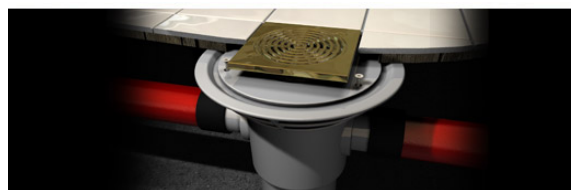
Wet Areas W.P,

## Wet Areas Floor Drain Installation

Wet areas floor drains are installed in typically ceramic tile floors with the waterproofing membrane fully bonded to leveling screed/ structural slab, and extending into the drain body. The membrane is securely attached to drain body by a bolted flashing ring.

Strainer shall be of adjustable height to accommodate required fill.

Floors must be sloped to drains. Entire floor area must be checked to avoid possible flat spots.



*“Careful and proper detailing is crucial for a watertight system.”*

## BituNil

50 Al Khalifa Al Mamoun,  
Roxy, Heliopolis

PHONE:  
(02) 24511194

FAX:  
(02) 24511198

E-MAIL:  
tech.support@bitunil.com

## BITUNIL & ISO 9001:2000 Certification

The accreditation of the quality management system, recently gained by BituNil, is already having its positive impact motivating the staff through clear definition of key roles, monitoring and feeding back information from all business divisions to ensure that a first class service is maintained. Cost savings are also a bonus, achieved through improved efficiency and

self-assessment of performance, where any detected deficiency is noted and rectified.

We are proud of our accreditation, and intend to put it into full use to better serve our clients, and live up to our commitment to lead the waterproofing industry in Egypt & the Middle East.



## Certification Benefits down the Road

We believe the certification will offer us a competitive advantage. It shall increase customer satisfaction and retention, and avoidance of litigation.

It shall contribute to waste reduction, and increase productivity. All of which shall promote both local & international business.



### *About Our Organization...*

The Nile Waterproofing Materials Company S.A.E., **BITUNIL**, is the product of experience, prudence and knowledge.

The BITUNIL plant is built

over an area of 20,000 square meters in Al Max Alexandria Port. The production plant is state of the art for the fabrication of modified bitumen membranes, and is fully

equipped to manufacture quality products that comply with internationally recognized standards.

### We're on the Web!

See us at:  
[www.bitunil.com](http://www.bitunil.com)