



BituNil Highlights

Special Interest Articles:

- Swimming Pools waterproofing.
- Mechanics of moisture travel below Grade

Individual Highlights:

Project Qatar trade show	1
SIB Casablanca	3
The Big 5 Show	4

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

Bitunil Participates in Project Qatar 2011

With the impressive series of construction projects underway in Qatar, in addition to the planned investments in construction for bringing FIFA World Cup to the region for the first time, the IFP Qatar show provided a unique opportunity for BITUNIL as well as many exhibitors, to gain access to a competitive market with construction material top companies and professional visitors.

BITUNIL stand, strategically located at a distinct area within the Egyptian Pavilion, was visited by the Egyptian ambassador in Qatar, Mr.

Mohamed Fawzi Abu Donya, along with the Iraqi ambassador. It stood out and was admired by visitors from all over the world who appreciated the quality product samples, catalogues and informative printed material, and roofing & waterproofing system design mock ups, as well as BITUNIL corporate video which sheds light on the development and growth the company has undergone in the past few years.



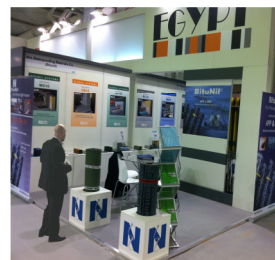
The Egyptian Ambassador At BituNil Booth



'BituNil' Stand: A presentable image at the Egyptian Pavilion

As per BituNil representatives at the event, the show has provided a good opportunity for hands-on experience of the special needs of the Qatari market and its neighboring countries and how to plan for serving this region.

Future business plans were made with large construction material companies who consider BITUNIL one of the leading manufacturers of Modified Bitumen Waterproofing Membranes in Africa & The Middle East, and trust it with private labeling of their bituminous waterproofing membranes.



Swimming Pools Waterproofing



With the increase in number of villas & home complexes in new developments and residential projects, a swimming pool has become the perfect addition to any home where a backyard or a front garden area allows for it. As it is an escape from Egypt's hot long summer months at the privacy of owners own



homes.

One important issue that needs to be properly addressed is swimming pool waterproofing system.

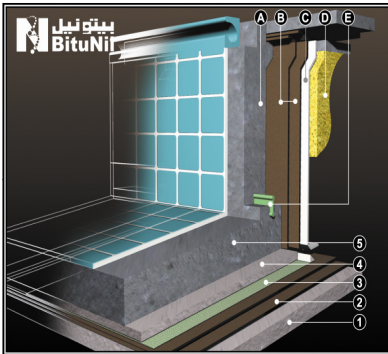
Internal waterproofing:

Is essential to prevent water loss from the pool, and to prevent chlorine treated water from damaging the pool structure through chemical reactions with reinforced concrete walls

and floor.

Cementitious w.p. is the most commonly used for internal waterproofing of swimming pools, as it is composed of cement based compound with special additives which is mixed with water and applied to concrete walls in a slurry form. It chemically bonds to the concrete surface rendering it waterproof, and can resist the constant pressure resulting from water head. It is also available in a variety of textures and colors.

Swimming Pools Tanking: System Design (UW10)



External Waterproofing:

Is essential to prevent groundwater born with sulfates and chlorides from coming in contact with external sides of structural reinforced concrete, thus preventing chemical reactions that may result in deterioration and damage of structural walls of pool.

For swimming pools tanking system, BITUNIL System design comprise a double layer, polymer modified, torch applied, bituminous waterproofing system.

Vertically:

- A-RC Walls
- B-MBM waterproofing
- C-Protection Board
- D-Backfill
- E-PVC Water-stop

Horizontally:

- 1-Blinding concrete
- 2-MBM Waterproofing
- 3-Separation Layer
- 4-Protection screed
- 5-RC Raft
- Blinding concrete on compacted soil to receive horizontal waterproofing system.
- Horizontal waterproofing system of two layers modified bitumen

waterproofing membranes as recommended by manufacturer (consult BituNil system sheets).

- Separation layer of polyethylene sheet loose laid onto waterproofing membrane with 100mm overlaps.

- Protection sand cement screed 30-50mm.

-Structural raft and RC walls.

-Vertical modified bitumen waterproofing membrane system as recommended by manufacturer.

-Asphalt impregnated 3mm protection board, spot bonded onto membrane system, preferably taped to prevent backfill damage to membrane.

BITUNIL Successfully Participates in SIB Casablanca 2010



In an important and elaborate gathering and with the participation of world leaders in the construction materials industry, SIB-CASABLANCA 2010 Exhibition was held from 1-7 November 2010 at Casablanca, Morocco, which is considered one of the largest exhibitions specialized in Construction Materials in the Arabian region. His highness Mr. Ahmed



Tawfik Hejira- Moroccan Minister of Housing and Urban Development has visited BITUNIL booth in the Egyptian pavilion, and was received by Eng. Hesham El Banhawi- Chairman & Managing Director of BITUNIL. The Moroccan minister of housing and Urban development has expressed his pleasure, along with those specialized in the field, with the quality of BITUNIL

products which is attributed to the dedication and commitment of its people to adopt the latest technologies in design, production and quality control.

BITUNIL is the leading manufacturer of Modified Bitumen Waterproofing membranes in Egypt and is one of the early Arabian companies interested in being present in the Moroccan Market. It has doubled the size of its exports to Morocco within few years, and is world wide recognized for the quality of its products which contributes to efficient waterproofing of buildings and complies with world trends towards environmentally friendly green buildings.



Moroccan Minister of Housing & urban development visits BituNil Booth

One of The largest Exhibitions in the region



Eng. Hesham El Banhawi has expressed his gratitude to his highness the Moroccan minister for visiting BITUNIL booth, and confirmed BITUNIL interest in reinforcing its presence in the Moroccan market and providing the necessary support to the waterproofing industry in Morocco, which contributes to increased cooperation and integration between Arabian sister countries.

BITUNIL at The Big 5 Show in Dubai

"The trade show is a main attraction world wide"



BITUNIL Uses Regional Expos to Advantage



The big 5 show is known to be the regions largest and most comprehensive product offering for the building and construction industry. The 2010 event was held 22- 25 November at Dubai World Trade Center hosting over 2500 exhibitors from 70 countries, with 27 national pavilions and covering all sectors of the industry.

BituNil has been consistently participating in the event for the past three years. The 2010 event facilitated great opportunity to showcase our full range of torch applied and self-adhesive modified bitumen waterproofing products as well as our newly added PVC and TPE single ply product range.

Several business meetings were scheduled with GCC clients to discuss future cooperation projects. BituNil booth received visitors from all over the world, as well as contractors and developers from the public and private sector aiming to network, source and specify the latest building and construction products and services.

BituNil has planned an out reaching marketing calendar that promotes expansion by participating in the top construction shows on regular basis. One of BituNil strategic objectives is to embark on newly developing markets through participating in their large construction shows such as Constroi Angola, Project Iraq, Sudan Build and Libya Build.



The Hydrological Cycle

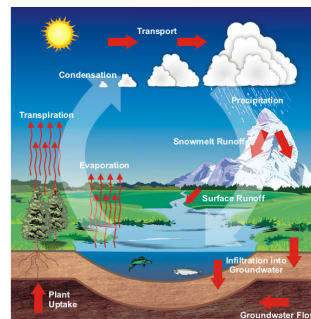
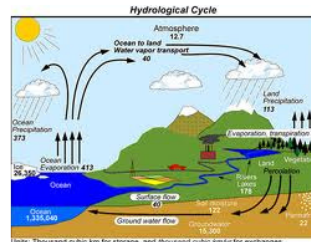
Moisture is everywhere around us. We are all part of the hydrological cycle- the never-ending cycle of evaporation from open water and condensation to produce clouds, precipitation, and dissipation of rain by runoff back into the open water or through the soil. Our buildings interrupt this natural cycle, so we must understand how moisture moves, and how to accommodate it.

The never ending source of moisture forces designers to incorporate systems within the building

structure to prevent the ingress of uncontrolled moisture. Dealing with moisture depends on whether it is above grade within roof and walls assembly, or below grade.

Buildings are major investments and require complete protection. All elements of the building envelope need to work together as a system from the ground up.

And any amount of uncontrolled moisture below grade is considered detrimental.



“Our buildings interrupt the natural Hydrological Cycle”

Mechanics of moisture travel below grade

Knowing the source of water and its movement is first step towards effective solutions towards its prevention or retardation.

Moisture travels below grade in the form of either:

Liquid water flow, capillary action, or vapor diffusion.

Liquid water flow may occur through impaired w.p. details, site drainage, irrigation systems, and hydrostatic forces with high water table.

Prevention is by installation of robust waterproofing system to withstand soil conditions and maintain long term waterproofing performance.

Vapor diffusion occurs by slow but sure movement of vapor, always present in surrounding soils, from the wetter exteriors of structure in Contact with soil towards the dry building interiors through porous concrete floors and walls. A pressure differential is essential for movement to take place from the higher vapor pressure to the lower vapor pressure areas.

Prevention is achieved by proper installation of vapor barrier tested for minimal water vapor passage through it.

Capillary action is a



(sponge like action) where moisture migrates from areas of high water concentration up-wards to areas of low concentration. Fine grained soil will draw water further compared to coarse gravel.

A capillary break can be achieved by using crushed stone layer followed by a vapor barrier on top, grading of foundation soil, and providing positive slope away from structure.

“Install robust waterproofing system, to withstand soil conditions while maintain long term w.p. performance.”

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Signs of Moisture Damage

Some signs of moisture intrusion are obvious wet floors and walls caused by leaks. But others are more difficult to see and identify the source. Signs of moisture damage are:

-Rust Stains and rusty nails.

-Mold and mildew growth.

-Rotten wood at its lower level.

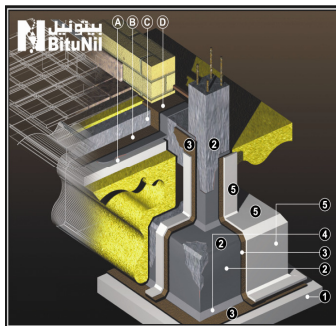
-Odors and poor indoor air ventilation.

-Discoloration, and peeling paints.

-Flooring adhesive failure and lifted flooring tiles.



BituNil Footing & Slab on Grade Waterproofing



System Design (UF11)

Footings:

- 1-Blinding Concrete
- 2-Foundations surfaces
- 3-Modified Bitumen Membrane waterproofing system
- 4-Protection screed
- 5-Protection Board

Slab -On-Grade :

- A-Blinding Concrete
- B-Modified Bitumen Membrane waterproofing system
- C-Slab-On-Grade
- D- waterproofing membrane termination.

We're on the Web!

See us at:
www.bitunil.com

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.