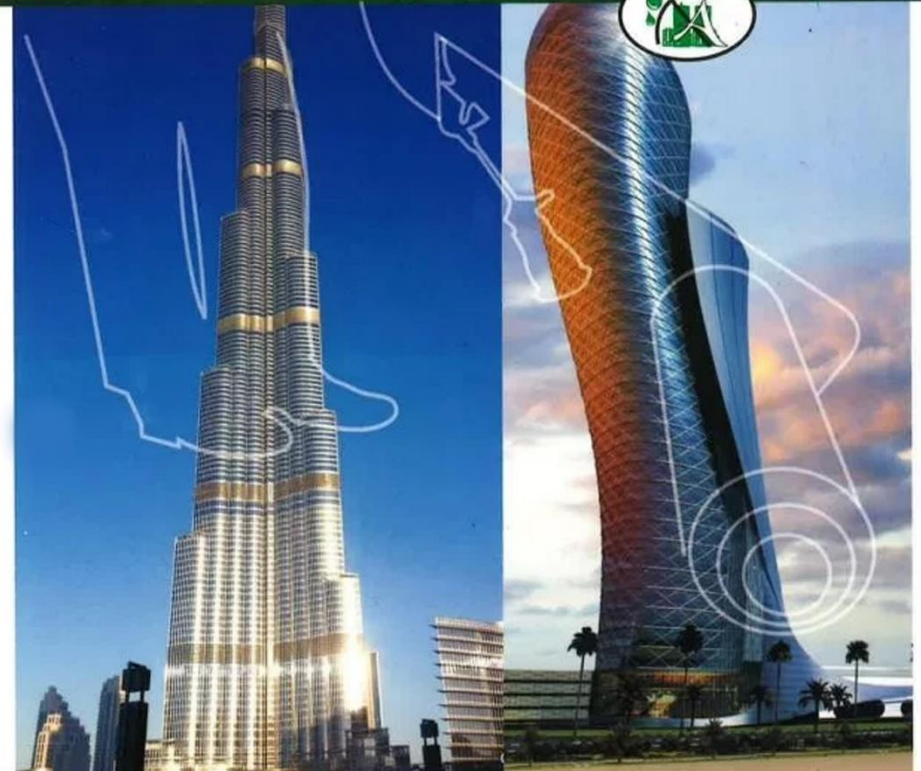


# The Perfect Waterproofing Solution

Stop  
Water Leakage



 	 EXPANDED POLYSTYRENE SOLUTIONS	 DERMABIT® WATERPROOFING IND.		
			 La Solución Efectiva	 The Chemical Company
		 Injektions-Programm		



*Tahir Amin* INSULATION CONT. LLC

+971 50 9677832  
 info@taic.ae, insulation008@gmail.com  
 www.taic.ae @taicllc2008  
 completewaterproofingsolution

*Tahir Amin* INSULATION CONT. LLC

+971 50 9677832  
 info@taic.ae, insulation008@gmail.com  
 www.taic.ae @taicllc2008  
 completewaterproofingsolution



## INTRODUCTION

**TAHIR AMIN INSULATION CONT. LLC** Is a professionally managed concern catering to the burgeoning demand in the UAE market for reliable service in the field of building insulation and maintenance services. The construction boom and the continuing expansion programmes of the nineties have sustained the growth of both the industry as well as the company and today commands a major presence in the highly competitive market. Our clientele includes a large number of construction companies.

The guiding philosophy behind the existence of the company is to make available to our customer product and services of commendable quality with strict adherence to time schedules and technical specifications, at prices that offer better value for money. The main activity undertaken by the company includes offering total solutions to a host of waterproofing and thermal insulation, civil work problems encountered in the construction industry. We ensure that only reputed high quality materials that meet all prescribed technical specification are utilized in the execution of each of our projects based on the requirement.

A highly professional team of engineers and managers complemented by a skilled and experienced work force ensures that high technical standards are maintained and that time schedules are adhered to in the execution of all our projects. It is therefore no surprise that our customers have a high regard for our work.



## Some of our valued Clients

SL.No.	PRODUCT	DESCRIPTION	MANUFACTURER
01	BAYMER / DESMODUR	POLYURETHANE FOAM	BAYER/BASF/POLYBIT
02	UNIPROOF	ACRYLIC COATING	PHIDELITE/POLYBIT/FOSROC
03	GT - 16	SEPARATION LAYER	GEOFABRIX/STYRO
04	SPACE CELL	EXPANSION JOINT FILLER	EMIRATES SPECIALITIES/ACT
05	SCREED	READY MIX SCREED	CONMIX LIMITED/READY MIX
06	POLYBOND PVA	ADMIXTURE FOR CEMENT AND MORTAR	POLYBIT INDUSTRIES
07	POLYSULPHIDE SEALANT	SEALING AGENT	POLYBIT INDUSTRIES/ACT
08	PU TOPCOAT / BRUSBOND	POLYURETHANE / CEMENTITIOUS COATING	PHIDELITE/FOSROC/POLYBIT/ACT



**SERVICE YOU CAN DEPEND ON**

Hereby we introduce ourselves, we are a company engaged in the following Scopes for about *20 years*.

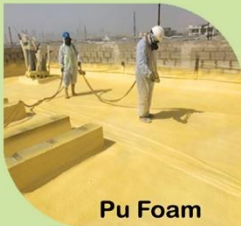
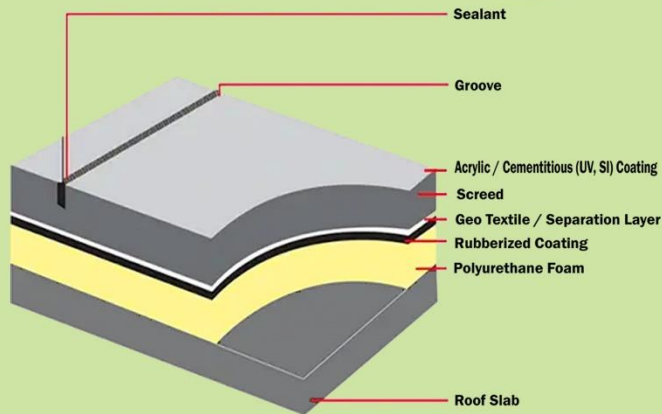
- All type of Maintenance & Civil works for Buildings, Villas etc.
- GRP Lining for Water tanks, Manholes, Roof gutters Sewage lines etc.
- Epoxy Flooring (Micro Cement, Metallic, Car Parking, Warehouse, Sheds.
- Crack Treatment by Injection for basements, water tanks etc. Leakage
- Combo Roofing System (Advance Roof System)
- Expansion Joint Works, Wide / small all type
- PVC / HDPE Membrane work for roof, basement etc.
- Polyurethane Spray (PU Foam)
- Light Weight Foam Concrete
- Thermal Insulation





**STOP**  
Water Leakage

## ADVANCED ROOF SYSTEM



This is achieved with special design features, such as cast aluminum or fabricated steel finger joints, which provide the bridging member spanning the structural gap. Finger Type Joints – which have relatively limited maximum movement range – can be set into a comparatively shallow block out. Molded slab style joints, including the WABOFLEX or TRANSFLEX types, are alternative concepts of complying larger movement expansion joints. A transition strip is recommended when slab type expansion joints are used.

What is the purpose of an expansion joint?

In building construction, an expansion joint is a mid-structure separation designed to relieve stress on building materials caused by building movement induced by: - thermal expansion and contraction caused by temperature changes, - sway caused by wind, - seismic events, etc.

What is the expansion joints in concrete?

Contraction/control joints are placed in concrete slabs to control random cracking. A fresh concrete mixture is a fluid, plastic mass that can be molded into virtually any shape, but as the material hardens there is a reduction in volume or shrinkage.



Why expansion joints are provided in buildings?

An expansion joint or movement joint is an assembly designed to safely absorb the heat-induced expansion and contraction of construction materials, to absorb vibration, to hold parts together, or to allow movement due to ground settlement or earthquakes.

Why do we need expansion joints in bridges?

Bridges are made of steel, which expands and contracts with temperature. A span long enough to need expansion joints may expand or contract several inches in the course of a year. Without those joints, either the bridge butt joints would crush and buckle in hot weather, or the bridge would pull apart in cold weather.



# ADVANCED ROOF SYSTEM

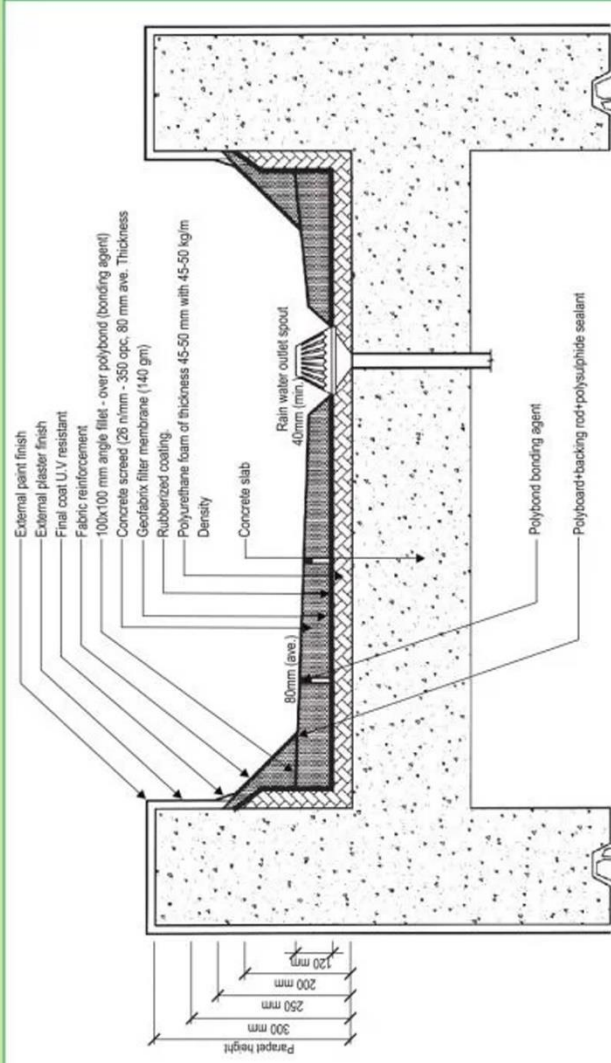
## Wide Expansion Joint

For Bridges, Buildings & Tunnels  
(30mm - 2000mm)

Large movement expansion joints are best defined as those that provide support across the expansion void, without exceeding the code requirement of the 85 mm ULS unsupported gap. Large movement expansion joints, particularly of the Modular type having movement capacities up to 2,000mm, require careful consideration as to the structural integrity of the bridge in this highly stressed area. Typical block out depth is in the order of 400mm. Careful consideration is required early in the design process. Consultation with TAIC engineers is recommended. The most popular types of large movement Expansion Joints include the Modular type with movement range up to 2,000mm, Steel Finger Joints with movement range up to 600mm.



Cast Aluminum Expansion Joints with movement range up to 300mm with each type having exhibiting unique operational characteristics. For skew applications, cast aluminum finger joints, typically having a triangular shaped finger, can be 'preset' to provide for limited skew movements. Steel finger joints, typically with rectangular shaped finger, can be manufactured to provide for very large skew movements.



CONSULTANT:

TITLE:

TAHIR AMIN INSULATION CONT. LLC

DRAWING BY:

CHECKED BY:

SCALE:

NOT TO SCALE

### METHODOLOGY FOR ADVANCED ROOF SYSTEM:

- Step 1 : Cleaning of the roof area.
- Step 2 : Covering the parapet wall (75 cm height) and other utilities fixed on the roof to avoid the risk of over spray.
- Step 3 : Spray apply polyurethane foam of average thickness 45-50 mm with density 45-50 kg/m
- Step 4 : Brush/spray apply burized water proof coating above entire P.U. Foam sprayed area.
- Step 5 : Loosely lay geotextile separation and protective layer 140 gsm with an overlap of 40 cm.
- Step 6 : Fix ridges in panels (area > 15m<sup>2</sup> and slope 1:100 - 1:150) using speccell boards and cement sand mortar.
- Step 7 : Lay protective screed concrete 26 n/mm<sup>2</sup> to slope (1:100 - 1:150).
- Step 8 : Fix backing rod and heavy duty elastomeric polysulphide joint seal to all construction joints in screed.
- Step 9 : Fix angle fillets along the parapet, mechanical duct openings and pre-utility upstands.
- Step 10 : Apply final coat of cementitious / acrylic U.V. Resistant protective coating above screed and angle fillet.



## Light Weight Foam Concrete

Light weight concrete is a mixture of cement, water and special foam, which produce a strong light weight building material combining good mechanical strength with low thermal conductivity. Light weight concrete is generally used to provide the slope required for the waterproofing membrane over the structural slab



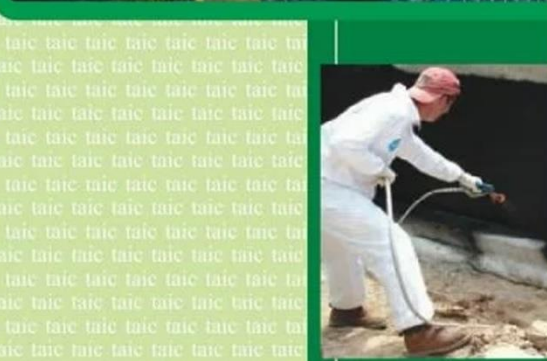
## Membrane Waterproofing

Membrane is very commonly using material in waterproofing especially for roof and underground structure, mainly it has classified in to two APP & SBS APP modified asphalt is used to manufacture plastomeric membrane with high temperature, SBS modified asphalt having exceptional elasticity and superior low temperature flexibility at sub-zero temperature



## Polyurea Coating

Polyurea is a two component sprayable waterproofing coating. It dries in seconds to provide a tough chemical and abrasion resistant coating. The spray applied polyurea can be built up to any thickness in one application creating a self-supporting seamless membrane of between 1 - 10 mm.



## Liquid Water

In large multi-story buildings Number of wet areas liquid Specified. In this case, we r rubberized liquid membrane liquid, however rubberized normal uses or modified pc where high performances and



## GRP Li

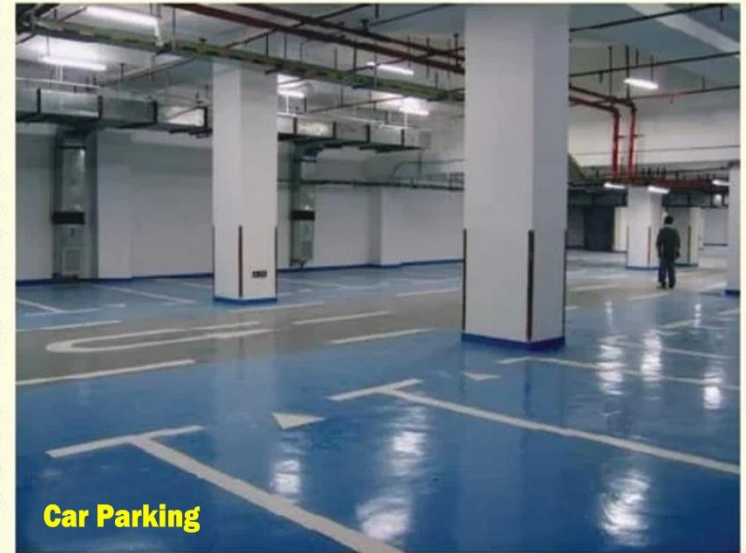
Fiber glass lining for RCC tanks, s manholes, roof g whatever shape GRP lining helps moulds, bacteri

recommended minimum thickn increased as per the requirement.

## Epoxy Floor Coating

Epoxy is the cured end product of epoxy resins, as well as a colloquial name for the epoxide functional group. Epoxy is also a common name for a type of strong adhesive used for sticking things together and covering surfaces, typically two resins that need to be mixed together before use.

Epoxy resins, also known as poly epoxides are a class of reactive prepolymers and polymers which contain epoxide



Car Parking

groups. Epoxy resins may be reacted (cross-linked) either with themselves through catalytic homo poly medication, or with a wide range of co-reactants including poly functional amines, acids (and acid anhydrides), phenols, alcohols, and thiols. These co-reactants are often referred to as hardeners or curatives, and the cross-linking reaction is commonly referred to as curing. Reaction of poly epoxides with themselves or with poly functional hardeners forms a thermosetting polymer, often with strong mechanical properties as well as high temperature and chemical resistance. Epoxy has a wide range of industrial applications, including metal coatings, use in electronic and electrical components, high tension electrical insulators, fiber-reinforced plastic materials, and structural adhesives. Epoxy resin is employed to bind gutta-percha in some root canal procedures.



Metallec Epoxy



Micro-Cement Epoxy

## GRP Lining

GRP lining is a hose relining method in which the inliner used is a seamless glass fibre fabric hose. GRP lining can be used to rehabilitate sewers with damage such as root penetration, deposits, socket offset, cracks and pipe fractures.

Once the existing pipe has been cleaned and inspected by a camera, it is prepared for rehabilitation with milling and smoothing robots. A winch then pulls the folded inliner hose into the existing

pipe through a shaft. When subjected to compressed air the inliner unfolds and applies itself to the inside wall of the existing pipe. The curing method is selected according to site conditions - using either ultraviolet light or a mixture of air and steam. Unsaturated polyester resins or vinyl ester resins are used, depending on the level of exposure to chemicals. The curing process is continuously monitored and recorded with the help of automated devices.

### GRP Lining At A Glance:

- Short construction times
- No field damage
- Installation through DN 600 shaft cone
- Excellent hydraulics due to smooth inside surfaces
- Efficient rehabilitation of straight pipe sections and bends
- Inliner made of corrosion- and chemical-resistant Advantex glass fibre fabric
- Perfect adaptation to the existing pipe due to radial expansibility
- Hose customization for all circular profiles up to DN 1280 and for oval profiles up to DN 1000/1500
- Various wall thicknesses depending on structural requirements



## Waterproofing

On account of the large area of waterproofing is often required. Some options like bitumen and polyurethane base and polyurethane base bitumen emulsions for waterproofing. Polyurethane emulsions are also used. Elasticity are required.

## Lining

Lining is being recommended for swimming pool drainage, basements, and mild steel tanks, etc. size, depth or design. Lining is used to resist the formation of rust, algae and fungi. The thickness is 3mm and can be



## Polyurethane Spray (PU Foam)

Polyurethane foam is produced by a chemical reaction of a polyol and an isocyanate, in the presence of catalysts and other additives. The result is a rigid plastic that expands during the curing process and becomes a seamless layer of closed cell foam. This coating produces a weather resistant surface that can be walked upon for normal maintenance.



## Polystyrene Insulation Board

Thermal insulation is particularly significant in hot climates where the energy demand for air conditioning is very high in addition to the need for energy conservation, high standards are justified by improved comfort levels and increased building life. This is recommended for any application requiring efficient thermal insulation good resistance to moisture and high mechanical strength.

## Car Park Coating

Car park floors are liable to harm from not only high wear and tear but also from leakages caused by cracks. Consequently, it is vital that these surfaces are protected through suitable coatings. Epoxy and polyurethane coatings are suitable for this area.



# Civil & Maintenance Services

