

## SPECIFICATION AND METHODOLOGY FOR OLD TERRACE WATERPROOFING

### Observation

### Recommendation

- The old cover concrete and system should be examined for its soundness.
- The slopes shall be checked for its effective drainage of rain water.
- The surface cracks shall be fixed with polymer modified cementitious crack filling compound.
- Injection pressure grouting is carried to fill the voids in the concrete by drilling holes at regular intervals c/c 1mtr by admixing Grout additive and integral water proofing admixture.

### Line of Action

- Dismantle the old system
- Surface preparation
- Fill up all the cracks
- Injection pressure grouting
- Fixing down take pipes
- Fixing joint tape
- Membrane coating
- Final layer of cement mortar screed
- Coving

### Specification for terrace waterproofing

- The product should be flexible, crack bridging.  
Apply two coats of waterproofing system to the terrace.

The product should demonstrate following properties

- Crack bridging -up to 1mm
- Tensile elongation -up to 30%
- Adhesion strength - approx. 1N/mm<sup>2</sup> at 28 days
- Vapour diffusion- approx. 2000μ
- Water head pressure- up to 5 bars

Proper care should be taken for all critical areas like wall slab joints etc.

### Products recommended

#### 1) **MYK Aquafin-UM**

It is a two component material. Component A –Powder, Component B- Liquid  
It is an acrylic based flexible protective coating & waterproof barrier, resistant to water, moisture and abrasion. It has crack bridging up to 1mm joint down take Pipes etc.

It is highly recommended to use **MYK Aso Joint-Tape 2000** Technology for the critical areas such as wall and slab joints and on any construction joints, down take outlets etc.

**Pack Size:** 33.3 Kg Composite Pack,  
25 Kg Powder + 8.33 kg liquid polymer

**Mixing ratio:** 3 parts of powder to 1 parts of liquid by weight

**Consumption:**

**MYK Aquafin UM** to be applied at 2.5 kg/m<sup>2</sup> in two coats.

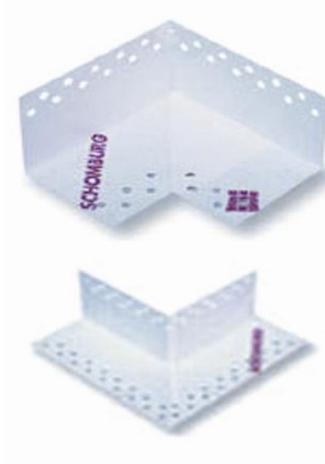
**2) MYK Aso-Joint-Tape 2000**

It is a composite material with expandable and water proof and high elongation properties.

**Packing:** 12cm x 50mtrs Roll  
20cm x 50mtr Roll



**MYK Aso Joint Tape 2000**



**MYK Aso Joint Tape for Corner**

**3) MYK Grout Add**

It is a single component powder Grout additive which is added to cement to produce a free-flow non-shrink expansive grout additive. It is generally used for injection pressure grouting wherever void filling is required and weak concrete structures, honey combed areas etc.

**Methodology**

- Step-1:- Surface preparation
- Step-2:- Procedure for injection pressure grouting
- Step-3:- Fixing of **MYK Aso Joint Tape 2000**
- Step-4:- Mixing of **MYK Aquafin UM**
- Step-5:- Application of **MYK Aquafin UM**
- Step-6:- Coving
- Step-7:- Application of screed

**Surface preparation**

- The hollow Brick Back coba / metal coba portion should be removed carefully by chipping to the entire depth or upto the unsoundness area.
- Proper preparation of the substrate is essential for better adhesion with the forthcoming surface.
- The surface should be clean, sound and free from loose particles.
- If any contamination such as oil, grease etc is removed by a mechanical mean like wire brushing, vacuum cleaning.
- If any cracks, more than 1mm then make a V-groove 20mm width and 25mm depth and filled with suitable repair mortar.

The wall and slab joints should be cleaned / levelled to have a uniform edge to receive the **MYK Aso Joint Tape 2000** treatment.

#### **Procedure of Injection pressure grouting**

- Drilling 12mm diameter holes with electric drilling machines along the honey combed area and floor wall joints @C/C 1 meter to a depth of half of the thickness of the slab and fixing PVC nozzles of 10mm dia or less in place using quick setting compound **MYK Fix 10 S**.
- Pressure grouting should be carried by using hand operated grouting machine of pressure 3.5 Kgs/cm<sup>2</sup> through the nozzles starting from one nozzle and stopping the operations when the grout starts coming out from adjacent nozzle, this is done similarly in all the nozzles.
- The Grouting is carried by admixing Grout Additive **MYK Grout Add** @ of 250 gms per bag of cement and Integral waterproof admixture/ **MYK Proof WP 10** @ 2% by Wt of cement by maintaining W/C ratio 0.45 for making the concrete water tight.

#### **Mixing of MYK Aquafin UM**

- Take 1/3<sup>rd</sup> content of the liquid **MYK Aquafin UM** & pour into a clean container and add **MYK Aquafin UM** powder into it.
- Stir well with a mechanical means until lump free homogeneous mix is obtained.

#### **Fixing of MYK ASO Joint Tape 2000**

- On the cleaned joint and floor junction **MYK Aso Joint Tape 2000** is placed on the joint or up stand in such a way that 50% is on the slab surface and 50% on the wall.
- It can be sandwich with the mixed waterproofing material (**MYK Aquafin 2KM**).

**Expansion Joints:** in the case of large roof slabs expansion joints should be taken care.

#### **Application of MYK Aquafin UM**

- The substrate should be pre-wetted before the actual application is undertaken.
- Care to be taken that there is no water pooling and excess water standing on the floor.
- The mixed material should be applied evenly @ 2.5 kg/m<sup>2</sup> in two coats.
- The first coat should be applied in horizontal direction.
- The second coat is applied in vertical direction as soon as the first coat is sufficiently hardened.

**Parapet walls:** The waterproofing coating shall be continued over the parapet wall to the top. The rain water pipe opening shall be coated from inside to a distance of 3 inches.

#### **By brush:**

The application of **MYK AQUAFIN-UM** is a simple brush application.  
Use soft bristle brush.

#### **Curing Of MYK Aquafin UM**

**MYK Aquafin UM** is self curing under normal condition but in harsh condition water (Sprinkle water) curing is required for 3 days.

The coated substrate/area can be exposed to:

- Rain ,vertical surface after approximately 3 hours
  - Rain ,horizontal surface after approximately 6 hours
  - Foot traffic after approx.1 day
  - Pressure water after approx7 days
  - Fixing of tiles etc after 1 day
- at ambient temperatures of +20°C and 60%relative humidity.

### Coving

75mm\*75mm angle fillets or coving with non-shrink mortar should be placed at the intersection of all vertical and horizontal surfaces for the waterproofing membranes to turn up.

### Application of Screed

- When the surface attained minimum strength (after 3 day) then laying the screed on the waterproofing coating.
- The final layer of avg.30 mm thick should be provided with cement concrete with 12mm down black metal coba.
- The whole system should be cured for 21 days by flooding the water to 25mm for better results.
- It gives protection for the waterproofing treatment and better abrasion resistance.

### WATCHPOINTS

- All fittings like drain water pipes etc should be fixed prior to the treatment as these are the weak portions and may tend to leak. If fixed afterwards, should be treated with **MYK Aquafin UM** and finished.
- All the critical areas like construction joints, down take pipes should be treated properly before doing the application of **MYK Aquafin UM**.
- The waterproofing coating shall be continued over the parapet wall to the top.
- The drain water pipe opening shall be coated from inside to a distance of 3 inches.
- Cover concrete is to be provided (after 3-4 days) on top of the waterproofing treatment (**MYK Aquafin UM**) for the protection of the membrane coating and for better water level to run down the drains and any kind of water pooling should be avoided.
- All movements on the coated surface should be strictly as per the directives of the technical data sheets, however it is best to avoid any rough handling of the substrate, contact of pointed objects etc should be avoided.
- Do not expose the application to water during the setting time.

### HEALTH & SAFETY

- Adopt health & safety regulations in accordance with local laws. Care should be taken when handling.
- **MYK AQUAFIN-UM** as it is may cause irritation due to its cementitious nature (please refer to Material Safety Data Sheet for specifics).
- As typical on most job sites, applicators should wear protective clothing and gloves. Those handling and mixing **MYK AQUAFIN-UM** should wear a facemask. Safety shoes and helmets must be worn by staff at all-times.
- **MYK SCHOMBURG** recommends the enforcement of stringent health and safety measures on all job sites.