

SPECIFICATION AND METHODOLOGY FOR OLD OVER HEAD WATER TANK

Specification for over head water tank waterproofing:

- The product should be flexible, high elongation, crack bridging.
- Applying and laying waterproofing treatment to the over head water tank.

The product should demonstrate following properties

- Crack bridging -up to 1.5mm
- Tensile elongation -up to 80%
- Adhesion strength - approx. 1.5N/mm² at 28 days
- Tensile strength - 1.3N/mm²
- Vapour diffusion- approx. 1000μ
- UV, age and frost resistant
- Water head pressure- up to 7 bars
- Non-toxic

Products recommended:

1) **MYK Grout ADD:** - It is a single pack powder Grout additive which is added to cement to produce a free-flow non-shrink expansive grout additive. It is recommended for injection pressure grouting wherever void filling is required and for weak concrete structures, honey combed areas etc.

2) **MYK Aquafin-2C:-** It is a polymer modified Cementitious easy to apply coating
It is a two component material
It bonds on wet surface without priming.

Pack Size: 35 Kg Composite Pack,
24 Kg Powder + 11kg liquid polymer

Consumption:

MYK Aquafin 2C to be applied at 3 kg /m².

3) **MYK Coat ZP:** - It is a two component Zinc rich primer for reinforced steel bars, provides an protection to the steel bars. It actively resists corrosion within the confines of the repair location

Pack Size: - 1.6 kg and 6.4 kg **Pack**

4) **MYK ASOPLAST-MZ:-**It is a single component acrylic co-polymer dispersive adhesion agent.

Pack Size: - 20 kg Pack

5) **MYK Crete RN:-**

It is a polymer modified, flexible, pasty, shrinkage compensated mortar.
It can be used for interior/exterior without corroding substance.

Pack Size: - 25 kg Pack

Methodology:

- Step-1:- Surface preparation
- Step-2:- Procedure of injection pressure grouting
- Step-3:- Mixing of **MYK Aquafin 2C**
- Step-4:- Application of **MYK Aquafin 2C**
- Step-5:- Application **MYK Coat ZP**
- Step-6:- Application of **MYK Asoplast MZ**
- Step-7:-Application of **MYK Crete RN**

Surface Preparation

- Proper preparation of the substrate is essential for better adhesion with the forthcoming surface.
- The surface should be dry and free from contamination such a soil, grease, loose particle.
- This is best achieved by rigorous wire brushing. Make sure that all joints are finished flush and blow holes filled with cement sand slurry.
- All surfaces to be treated with **MYK Aquafin UM** coating must be presoaked with clean water. Ensure that there is no standing water on the surface and should comply with engineering standards.

Injection Pressure Grouting

- Drilling 12mm dia holes with electric drilling machines along the weak concrete or honeycombed area @C/C 1 mtr to a depth of half of the slab thickness and fixing PVC nozzles of 10mm dia or less in place using quick setting compound **MYK Fix 10S**.
- Pressure grouting should be carried by using hand operated grouting machine of pressure 3.5 Kgs/cm² 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.

Mixing of MYK Aquafin 2C

- Take the 2/3rd content of the liquid component (The second liquid component of **MYK Aquafin 2C**) into a clean container and add **MYK Aquafin 2C** powder into it.
- Stir well with mechanical means @ 500-700 rpm until lump free homogeneous mix is obtained.

Application of MYK Aquafin 2C

- The substrate to be treated should be wetted before the actual application is undertaken.
- Care to be taken that there is no excess water standing on the surface.
- The mixed material should be applied evenly @ 3 kg/M² in two coats.
- The first coat should be applied horizontally @ 1.5-2 kg/M².
- The second coat should be applied vertically at an interval of 4-5 hours at 20°C.
(**Note:** The application consumption for 1st coat and 2nd coat is given as a guide line for your understanding.)
- This will be purely based on the prevailing atmospheric conditions.
- More the ambient temperature lesser the time gap.

By brush:

The application of **MYK AQUAFIN-2C** is a simple brush application. Use soft bristle brush.

By spray:

MYK SCHOMBURG recommends the use of peristaltic motion spray pumps, which are the most, appropriate, Practical and economic method for **MYK AQUAFIN-2C** application on large area applications. Please, Refer to **MYK SCHOMBURG** for list of approved spray equipment.

Curing of MYK Aquafin 2C:

Unlike other cementitious-based materials, **MYK AQUAFIN-2C** is a self curing product and does not require any post curing.

Surface Preparation:

Hammer testing the concrete surface for cavities and chiseling of all loose portions to sound core concrete and expose rusted reinforcement
Clean rusted reinforcement and exposed concrete surface by sand blasting or by mechanical devices like wire brush or scrubbers

Application of Zinc Rich Primer:

Application of two coats of zinc rich anticorrosion primer **MYK coat ZP** on to the thoroughly cleaned embedded reinforced bars surface. The second coat should be applied when the first coat is completely dry approximately about 40 Min depending on the temperature

Asocrete- to the thoroughly cleaned embedded reinforced bars
Application of two components polymer based bond coat for better adhesion with the forth coming polymer mortar and the repaired concrete surface **MYK ASO HS-Flex**
Application of carbonation resistant polymer modified ready to use fine mortar **MYK ASOCRETE FS + MYK ASO HS-FLEX** for application to the desired thickness of the cover concrete. Final protection coat to the cover concrete, **MYK AQUAFIN UM** is the coating applied to concrete surface to arrest the carbonation process.

WATCHPOINTS:

- All fittings like water pipes etc should be fixed prior to the treatment as these are the weak portions and may tend to leak. It should be treated with **MYK Aquafin 2C** and finished.
- All the critical areas like honey comb area, weak area etc. should be treated properly.
- 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, pointed objects etc should be avoided.

Health & Safety

- Adopt health & safety regulations in accordance with local laws. Care should be taken, when handling **MYK AQUAFIN** products.