Why is waterproofing essential?

Waterproofing is the process of making an object or structure water-resistant so that it remains relatively unaffected by water or resisting the ingress of water under specified conditions. In construction, a building or structure is waterproofed with the use of membranes and coatings to protect contents, and structural integrity; it is a fundamental aspect of creating a building envelope, which is a controlled environment. Reports have shown that waterproofing only accounts for 1% of a building's construction costs but when ignored, it can be responsible for almost 90% of the damage.

The exterior elements of a building are its first line of defense against the elements, leaks and water damage. In addition, interior materials serve to reinforce the exterior building envelope. Making sure both are properly waterproofed is a critical component of protecting your building structure from leaks and water damage. It’s especially important here in Pakistan, where heat and humidity are rampant. Mold and mildew flourish in this kind of high moisture environment and can destroy foundations, trim, drywall, and decks.

This deterioration is not only unattractive, but also a health and safety hazard. Rotting decks can collapse and cause injuries and mold can cause allergic reactions and respiratory problems. This kind of damage also significantly lowers the value of your property. On top of the shoddy appearance of the exterior, this also leads to additional moisture buildup in the interior that can wreak havoc on the walls and contents inside. Repairing these damages can be very expensive, time consuming, and it’s much more affordable and easier to prevent, than to fix.
Foreword from the Director, Shabbir Millwala

It is my great pleasure to introduce the first newsletter of Aquafin Pakistan. It has been almost 15 years since the company started operation and today, I am happy to see it established as a responsible and trusted enterprise with a glowing reputation in the industry. The Aquafin Pakistan journey was not an easy one as besides the introduction of more advanced products, what we attempted was to change the ways by which a product was introduced.

We were, in many ways, able to shift the decision-making process from a ‘price only’ criteria to ‘value for money’. Instead of selling a product, we became partners with our clients in safeguarding their assets from various environmental elements, especially water. We associated ourselves with leading architects and consultants and helped them incorporate waterproofing products as per their design requirements. In order to ensure proper application of our products, we trained applicators and helped them reach a level of competence so they can provide long term guarantees to Aquafin Pakistan customers.

During this journey there are many organizations and individuals who have supported us in our initiatives and we are very thankful to all of them. Moving forward, we see our company growth through a continued trend in knowledge-based decision-making. A process where a product is not approved based on its price but on a complete system which involves multiple product use based on design requirements, technical support and trouble shooting.

Lastly and most importantly, I would like to thank all of our company employees, many of whom have been with us since the inception of the company, for their efforts and in believing that money can be made with honest and sincere working.

Project Review: Emaar

Emaar Pakistan is pioneering the concept of master-planned communities that integrate residential amenities with schools, healthcare, shopping malls, hotels, dining and entertainment, to bring a world class lifestyle to the country.

Aquafin Pakistan supplied a fully comprehensive solution to provide the ultimate watertight protection for basement, roofs, and wet areas. Customized solution for swimming pool, fountain and planter bodies were provided as per international specifications.

One of our professional civil engineer is deputed on the EMAAR sites for looking after the application and supplies for proper execution of waterproofing work in order to consistently uphold work standards and for close coordination with the site teams of applicators, PATSA Pakistan, and main contractors; Paragon Construction and Principal Builders.
Project Review: Aga Khan University & Hospital

Aga Khan University Hospital, Karachi provides the highest quality of health care to patients. This modern facility has been built to give patients and their families extra comfort and convenience. Inspired by Islamic art and culture, the architecture and landscaping have been carefully designed to create an environment that contributes to the patient's healing process and early recovery.

As per the demands of health care needs, the hospital seeks support for individual patient health care, as well as to build new facilities with the latest medical advances that can be accessible to more people.

In the last decade, Aga Khan Hospital has been involved in several large new construction developments including expansion in Patients health care facilities and Utility services area. From foundation waterproofing, roofing protection and water retaining structures Aquafin products played an important role to achieve the waterproofing requirements for each part of the structure. All products complied with the rules associated with specifications for durable and high performance concrete in terms of strength, permeability and sustainability.

All construction materials were required to be of the highest quality to satisfy strict health and safety regulations applied in hospitals and healthcare facilities. The materials were also required to withstand the variable weather of Pakistan and provide years of service without the need for constant repairs.

Due to the location of the below ground and underwater reinforced concrete structure, which were to be fitted with high value 'state-of-the-are' electronics and electrical equipment a durable waterproofing solutions was required.

As with any below ground or water retaining reinforced concrete structure, it was also necessary to design a systems which is easy to repair and waterproof in case of any appearance of cracks, construction defects such as honeycombing and damages due to accidents. After extensive evaluation process, the project consultants and the client selected a complete Aquafin System Solution for the waterproofing of structure that is time tested and reliable.

Projects completed by Aquafin Pakistan

1. Ambulatory Care Building – II (ACB- II)
2. New Private Wing
3. Domestic Storage Tank

Projects under construction

1. University Center
2. Women and Child health center, (W&CHC)
Betocrete-C crystalline waterproofing is available in either liquid or powder form. It reduces water penetration through nano-crystals. It also covers steel adding protection against corrosion. Furthermore, it acts as a plasticizer by reducing the capillary pore structure.

The crystalline technology reacts with in situ moisture and free lime in concrete to create capillary sealing nano-crystals in cracks up to 0.5mm. The use of Betocrete-C products reduces water penetration by up to 80%. Testing by independent institutes have shown a reduction in water penetration from 25mm to 5mm. The water vapour permeability is also lowered by around 10 times.

As water is the main transport medium for damaging substances, Betocrete-C improves the permanence of the concrete. There is increased resistance to carbonization, chloride migration, freeze-thaw cycles as well as chemical influences. Moreover, with each new contact with water, the active ingredient forms new crystals and continues to do so over many years. Extensive tests show that Betocrete-C is capable of achieving auto-reactive, crack-healing function. This lowers the repair costs of buildings and increases longevity; an increased return on investment.

For more detailed product information, please contact Aquafin Pakistan.
Aquafin Tiling Solution

Aquafin Pakistan provides tile adhesive as per international standards specifications for high performance tiling application. From normal to large format tiles as well as tiles used under water e.g. swimming pools and water retaining structures.

1. Pipe penetrations will be grouted with Non-Shrink Cementitious Grout

2. The 2 comp waterproofing flexible coatings will be applied with joint tape on pipe sleeves and corners in order to water tight the joints.

3. The concrete screed will be laid after waterproofing application

4. For further reinforcement Acrylic based waterproofing membrane will be applied before tiling.

5. The tiles will be fixed with our suggested adhesive and grouts.

For kitchen tilings  For bathroom tilings  For swimming pools
Testimonials

Mr. Ejaz Ahed; CEO and Managing Architect
Ahed Associates
We have been using Aquafin products on our projects for over a decade and find them to be of true German quality. We recommend that the products, if applied by the supplier or authorized installer, can be relied upon for building projects of any nature and magnitude with complete trust for long term solutions.

Mr. Salim Latif; Deputy Managing Director
Paragon Construction Ltd
It goes without saying that Aquafin Pakistan is one of the best in the building construction market and they have a professional team of people who are well versed with their products. We generally use Aquafin waterproofing products which provide solutions to various tricky structures. Their workmanship is one of the finest I have seen so far and they work with honesty and dignity.

Meet the team

Karachi Technical and Sales Team

Lahore Technical and Sales team