

Injection resin waterproofing & Structural repairs

Providing Type B Structural waterproofing using a range of PU and acrylic resins to prevent water ingress and structural damage

Challenges

When it comes to structural waterproofing the challenge of stopping an active leak, presents a unique challenge in that traditional cementitious or bitumastic products can wash away before they have chance to cure. PU and Acrylic injection resins provide a permanent solution to stop active leaks by reacting with water or catalysts to cure quickly and stop active water leaks

Applications

The resin injection system is designed to seal and repair cracks and holes in walls, floors, joints, foundations and concrete construction that suffer from water infiltration. Resin injection systems are effective for a variety of structures including:

- Basements
- Tunnels
- Bridges
- Underground car parks
- Water treatment facilities

Resin injection waterbar

Resin injection waterbars are an excellent solution for waterproofing structures because they provide a complete seal against water intrusion. The expanding polyurethane resin mix is injected into the ground via small bore injection tubes. The chemical reaction and consequent expansion occur as the components mix together, upon entry to the ground. This process creates a waterproof barrier that prevents water from penetrating the building's foundation or basement



Injection methods

Considering waterflow, condition of concrete and the type of resin required. It involves drilling holes into the concrete where the cracks or joints are located, and then inserting metal tube packers into the holes. The packers are then used to inject a waterproofing resin into the cracks or joints under pressure, which then hardens to create a watertight seal.



Acrylic resin injection

Acrylic resin injection is a process used in construction and engineering to seal and waterproof cracks and joints in concrete structures. It involves injecting a low-viscosity acrylic resin into the cracks or joints, which then combine to create a watertight gel or rubber type materials. This technique is effective in preventing water infiltration and protecting the concrete from further damage caused by freeze-thaw cycles, corrosion, and other environmental factors



PU resin injection

PU resin injection is a process used in construction and engineering to strengthen and repair concrete structures. It involves injecting a polyurethane resin into the damaged area, which then expands and hardens to fill the cracks and voids. This technique is effective in repairing cracks, voids, and other damage in concrete, as it provides a strong and durable bond that can withstand heavy loads and environmental factors

Results and solutions

The results of waterproof resin injection can be highly effective in preventing water infiltration and protecting concrete structures from further damage. By sealing cracks and joints in the concrete, waterproof resin injection creates a watertight barrier that prevents water from entering the structure. . This technique can be used to repair a wide range of concrete structures, including basements, tunnels, retaining walls, and parking garages

Additionally, the use of waterproofing resins can help to extend the lifespan of concrete structures and reduce the need for more costly repairs in the future. Overall, waterproof resin injection is a highly effective solution for repairing and protecting concrete structures from water damage