



INDUSTRIES
— ISO 9001: 2015 COMPANY —

FROM CRACKS TO CONFIDENCE

The Dr. Fixit Fastflex Waterproofing Advantage



TABLE OF CONTENTS

PAGE	TOPIC
3	Executive Summary & Product Overview
4	The Importance of Waterproofing – Why Proper Waterproofing Matters
5	Traditional Waterproofing Challenges & Limitations
7	Dr. Fixit Fastflex – Technical Innovation Explained
9	Technical Specifications & Performance Data
10	Application Guidelines & Best Practices
11	Quality Control & Verification Protocols
13	Troubleshooting Guide – Expert Solutions
14	Safety Protocols & Environmental Compliance
15	Conclusion: Ensuring Durable, High-Performance Waterproofing
16	About ADT Industries & Contact Information

EXECUTIVE SUMMARY & PRODUCT OVERVIEW

This section establishes context and positions Dr. Fixit Fastflex in the construction chemicals market.

PURPOSE:

The executive summary should help any reader — whether a decision-maker, contractor, or technician — quickly grasp what the product is, why it matters, and what specific problems it solves.

PRODUCT DEFINITION:

- Dr. Fixit Fastflex is a two-component acrylic cementitious waterproofing system consisting of:



- **Part A:** Liquid acrylic polymer emulsion.
- **Part B:** Specially formulated cement-based powder containing graded fillers and chemical additives.

When mixed, they form a seamless, flexible waterproof membrane over concrete or masonry substrates.

Key Benefits :

- **Seamless Technology** – avoids weak joints typical in sheet membranes.
- **Elastomeric Properties** – allows elongation $\geq 120\%$, accommodating thermal cycles and structural micro-movements.
- **Hydrostatic Resistance** – withstands positive and negative water pressure, suitable for both above-grade and below-grade applications.
- **Multi-surface Adhesion** – bonds to concrete, mortar, brick, and some stone substrates, even when damp.
- **Potable Water Safe** – tested for use in drinking water tanks.
- **Environmental Friendliness** – low-VOC, water-based formulation.

Relevance in Market:

Fastflex targets a gap where traditional cementitious coatings may crack and sheet membranes fail at junctions. It offers the flexibility and adhesion of polymer-modified systems with the robustness of cementitious coatings.

THE IMPORTANCE OF WATERPROOFING - EXPANDED ANALYSIS

Waterproofing is not merely a finishing touch; it is a vital structural safeguard that protects buildings from the detrimental effects of water ingress. Understanding the risks and implications of inadequate waterproofing is essential for any construction project.



RISKS OF WATER PENETRATION

- **Chemical Attack:** Water acts as a carrier for dissolved salts such as chlorides and sulfates, which can penetrate concrete structures. These salts can lead to chemical reactions that cause corrosion of embedded steel reinforcement bars (rebar), significantly compromising the structural integrity and longevity of the concrete.
- **Freeze-Thaw Cycles:** In colder climates, water that penetrates building materials can freeze during low temperatures. As it freezes, it expands, exerting pressure on surrounding materials. This can result in structural spalling, where surface layers of the concrete flake away, leading to cracks and eventual structural failure if not addressed.
- **Biological Growth:** Moist environments foster the growth of mould, mildew, and other fungi, which can proliferate on damp walls and ceilings. This not only poses health risks, including respiratory issues and allergic reactions, but can also damage interior finishes and furnishings, leading to additional repair costs.
- **Infrastructure Deterioration:** Ongoing water intrusion can significantly weaken the bonds in concrete, leading to deterioration of materials and structural components. Over time, this can damage rebar, lead to expansive cracking, and ultimately shorten the life span of the entire structure.

STATISTICS

Research reveals that approximately **80% of building defects** stem from issues related to water ingress. This underscores the necessity of implementing effective waterproofing measures at the outset, as neglecting this aspect can lead to significant maintenance challenges.

ECONOMIC IMPACT

The financial implications of not addressing waterproofing are substantial. Studies indicate that the cost of repairing structural damage resulting from water ingress can be **5 to 10 times more expensive** than investing in proactive waterproofing solutions. These initial measures not only safeguard the building's integrity but also ensure long-term cost savings and sustainability.

TRADITIONAL WATERPROOFING CHALLENGES & LIMITATIONS – IN DEPTH

Internal waterproofing is essential in modern construction. Unlike surface waterproofing techniques, which only offer superficial protection after concrete hardens, internal waterproofing addresses moisture risks from the start, making the concrete itself more resilient.

CONVENTIONAL METHODS:

- **Bitumen Coatings** – These coatings are commonly used for their waterproofing capabilities; however, they are highly susceptible to ultraviolet (UV) degradation. Over time, exposure to sunlight can cause the bitumen to become brittle and crack, compromising its effectiveness. Additionally, they may require periodic maintenance and reapplication in areas with high UV exposure.
- **PVC/EPDM Membranes** – Both polyvinyl chloride (PVC) and ethylene propylene diene monomer (EPDM) membranes provide good waterproofing but demand meticulous joint sealing to prevent water infiltration. In vertical applications, these membranes may struggle with adhesion if not mechanically fastened, leading to potential failures in areas where gravity exerts additional pressure.
- **Integral Waterproofing Compounds** – These compounds can enhance the waterproofing capacity of concrete by reducing its permeability to water. However, they do not address existing cracks in the substrate and may merely slow down water ingress rather than provide a comprehensive seal. Consequently, pre-existing damage must be rectified before application to ensure a fully effective barrier.
- **Single-component Cementitious Coatings** – Although these coatings are easy to apply and offer some degree of waterproofing, they are inherently rigid with low flexibility. This rigidity becomes problematic in environments where thermal expansion and contraction occur. Their inability to effectively bridge cracks means that once the substrate moves, it can lead to failure and water penetration.



KEY PROBLEMS:

1. Movement Sensitivity: Traditional waterproofing methods can struggle under thermal expansion and structural movements, often exceeding their designed stretch capacity. This inadequacy leads to the creation of gaps and fissures, resulting in leakage.

2. Failure at Details: Critical locations such as corners, pipe penetrations, and wall-floor junctions are notorious failure points for many waterproofing systems. Inadequate sealing or poor detailing in these areas allows for water ingress, often leading to extensive damage.

3. Labour Dependence: The long-term performance of waterproofing systems is heavily reliant on the skill and expertise of the applicator. Variability in application methods may lead to uneven thickness, incomplete coverage, and improper sealing, which can ultimately compromise system integrity.

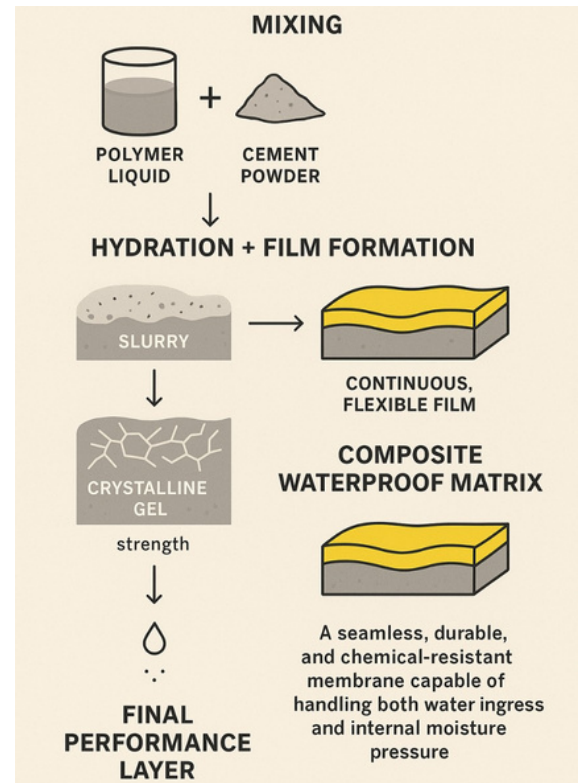
4. Substrate Moisture Issues: Several waterproofing systems mandate completely dry surfaces during application, as the presence of moisture can result in blistering, delamination, or reduced adhesion. Failures stemming from unaddressed substrate moisture can lead to significant repair costs and prolonged disruption.

This section can further explore failure case studies, highlighting instances of water ingress directly attributable to the improper selection of products or inadequate application techniques. These real-life examples serve to underscore the importance of careful assessment and planning in waterproofing applications.

DR. FIXIT FASTFLEX – TECHNICAL INNOVATION EXPLAINED (DEEP TECHNICAL)

• TECHNICAL SCIENCE:

The incorporation of acrylic polymer significantly enhances the material's performance by providing flexibility, superior water resistance, and strong adhesion properties. This versatility allows the product to effectively adapt to a variety of substrates and movements without compromising its integrity. The cementitious powder component plays a crucial role in delivering mechanical strength, high abrasion resistance, and impermeability, essential for protecting structures in demanding environments. When these two components are combined, the hydration process of cement occurs alongside the formation of a polymer film. This synergy results in a robust matrix that exhibits both strength and elasticity, enabling it to withstand various physical stresses.



• PERFORMANCE MECHANISM:

-Filling Capillaries: The specially formulated slurry is capable of penetrating the micrometer-scale surface pores of the substrate. By effectively blocking moisture pathways, it significantly reduces the risk of water ingress, ensuring enhanced durability and longevity of the underlying structure.

-Seamless Membrane: Unlike traditional membrane systems that rely on multiple sheets and joints, this material forms a continuous, seamless film. This design eliminates potential weak points that can lead to failures, providing unparalleled protection against moisture intrusion.

-Crack Bridging: The material is engineered with superior elongation properties, enabling it to resist the formation of cracks up to 2mm wide. This feature is particularly beneficial in environments subject to thermal expansion and contraction, ground movement, or settling.

-Dual Pressure Resistance: The formulation is designed to withstand both internal (negative) and external (positive) water pressures. This dual resistance ensures that the structure remains secure from water damage regardless of the source or direction of the pressure.

- **STANDARDS COMPLIANCE:**

- **EN 1062-7:** This standard addresses crack bridging capabilities, ensuring that the material meets stringent requirements for flexibility and resistance to cracking.
- **ASTM D 412:** This standard evaluates the tensile strength and elongation properties of the material, validating its ability to stretch and endure without breaking.
- **EN 12390-8:** Compliance with this standard ensures that the material's water permeability is at acceptable levels, preventing unwanted moisture penetration.
- **ASTM C 1202:** This standard measures chloride ion penetration, which is crucial for assessing the durability of materials exposed to harsh environments, such as de-icing salts.

These enhancements in the formulation and performance characteristics make this product an excellent choice for a wide range of construction and renovation applications, ultimately contributing to the longevity and resilience of the structures it protects.

TECHNICAL SPECIFICATIONS & PERFORMANCE DATA – DEEP BREAKDOWN

UNDERSTANDING THE KEY PROPERTIES OF FASTFLEX WATERPROOFING

When evaluating a waterproofing system, it's not enough to look at technical data alone—understanding what each property means in real-world application is essential. Below is a breakdown of Fastflex's performance features and their practical implications for applicators and end-users:

- **Pot Life – 60 minutes**

Fastflex provides a working time of up to an hour after mixing. This allows applicators to plan and apply the product efficiently, but also emphasizes the need to mix in controlled batch sizes. Overmixing can lead to wasted material once the pot life expires.

- **Elongation – $\geq 120\%$**

One of Fastflex's most important advantages is flexibility. The membrane can stretch more than double its original length before rupturing. This property is critical for areas with movement joints, thermal expansion, or microcracking—ensuring the system remains intact even when the substrate shifts.

- **Water Permeability – Pass at 5 bar**

Fastflex can resist water pressure equivalent to a depth of nearly 50 meters. This makes it suitable not only for above-ground waterproofing but also for retaining structures like basements, water tanks, and podium slabs where hydrostatic pressure is a challenge.

- **Adhesion Strength – 1.0 N/mm^2**

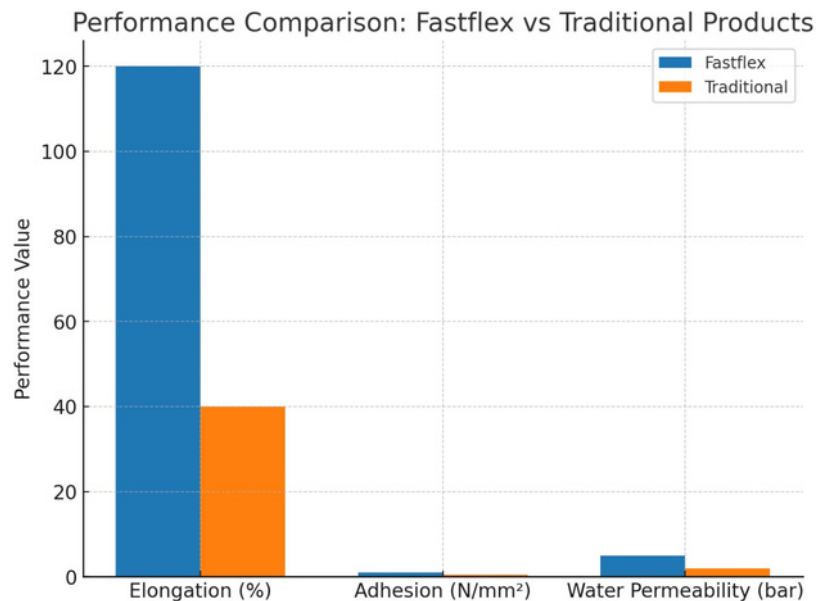
With strong adhesion to concrete and masonry, Fastflex prevents delamination even under service loads and environmental stress. This ensures long-term reliability without peeling or blistering.

- **Coverage Rate**

Coverage rate data allows project managers to calculate precise material requirements. This helps in optimizing procurement, reducing wastage, and keeping the project within budget.

- **Performance Comparison**

When compared visually against traditional products, Fastflex demonstrates higher elongation, stronger adhesion, and superior water impermeability. Graphical comparisons in elongation, adhesion, and permeability highlight Fastflex's advantages, making it the superior choice for durable and flexible waterproofing.



APPLICATION GUIDELINES & BEST PRACTICES – DETAILED

STEP-BY-STEP APPLICATION GUIDE

1) Surface Preparation

Begin with a sound, clean substrate. Mechanically remove laitance, oil, grease, curing compounds, and loose particles by grinding or shot-blasting. Open pinholes. Repair cracks with polymer-modified mortar; fill honeycombs and voids; round sharp edges and create 10–15 mm coves at wall–floor junctions. Pre-dampen the surface to SSD (saturated surface-dry): damp, but with no free water or sheen.

2) Mixing Ratio

Stir Part A liquid polymer, then slowly add Part B powder at the specified ratio (per TDS). Mix with a low-speed drill (300–500 rpm) for 2–3 minutes until lump-free and creamy. Let the mix rest 2 minutes, then remix briefly. Keep the pail shaded and use within the 60-minute pot life; mix only what you can place. Clean tools with water before the material sets.

3) Application

Apply Coat 1 with a brush or roller in horizontal strokes, pressing material into pores. While still green or after tack-free (as conditions allow), apply Coat 2 in perpendicular strokes to achieve uniform coverage and film thickness. Embed fibreglass mesh across joints, chases, and areas of anticipated movement; overlap 50–75 mm. Detail corners, pipe penetrations, and drains carefully. Allow recoat time—typically hours depending on temperature, humidity, and airflow.

4) Curing

Protect the fresh membrane from rapid drying, wind, and direct sun. Moist-cure or cover with damp hessian/poly for 3–5 days. Prevent trafficking, impact, and ponding until cured; then proceed with protective screed or finishes.

5) Common Mistake Prevention

Do not dilute with extra water or retemper partially set material. Avoid mixing the entire kit if it cannot be applied within the pot life. Do not apply during rain or on standing water; avoid strong sun and hot substrates. Work strictly within the manufacturer's recommended temperature and humidity. Inspect for pinholes or missed areas and touch up before curing completes.

HOW TO APPLY – STEP BY STEP ?



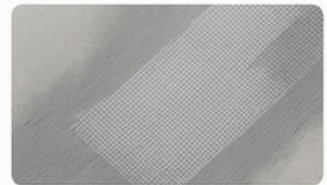
1 Surface Preparation
Clean + repair cracks



2 Mixing Ratio
Mix Part A + Part B
as per ratio



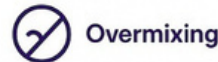
3 Application – Coat 1
Apply first coat
horizontally



**4 Application
Coat 2 + Mesh**
Second coat perpendicular
+ reinforce with mesh



Extra water



Overmixing



Overmixing



Strong sun
/ rain

QUALITY CONTROL & VERIFICATION PROTOCOLS – DEEP PROCESS

QUALITY CHECKS: BEFORE, DURING & AFTER APPLICATION

Ensuring reliable waterproofing requires thorough checks at every stage of application. These checks verify that the product bonds correctly, delivers the specified thickness, and performs under real site conditions.

Quality Checks

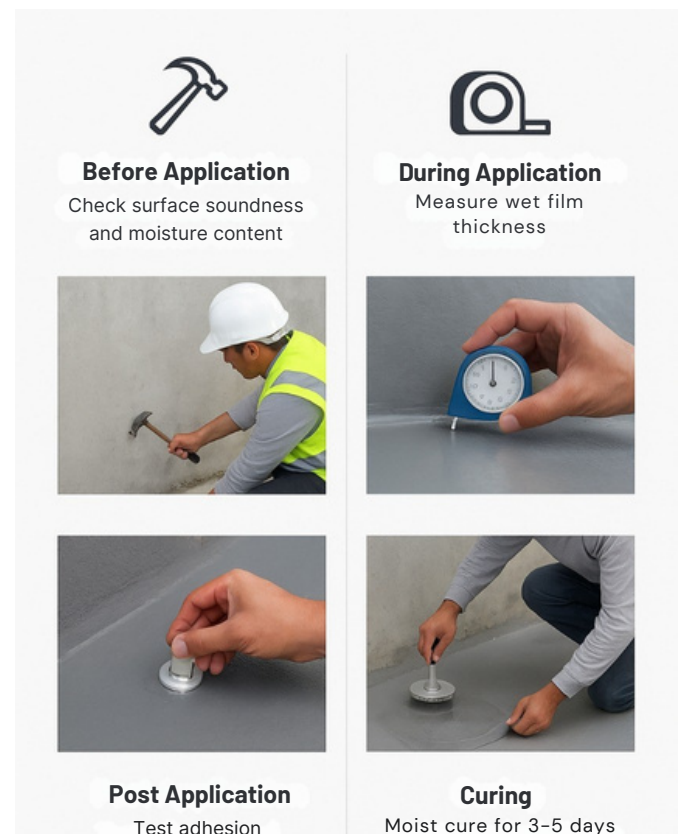
Before, During & After Application

BEFORE APPLICATION

The first step is checking the **soundness of the substrate**. A **hammer tap test** is used to detect hollow or weak areas—any section that sounds drummy indicates poor bonding and should be repaired before coating. Following this, the **moisture content** is assessed. The substrate must be **SSD (Saturated Surface Dry)**—this condition prevents suction from drawing water out of the slurry while ensuring no free-standing water remains. Achieving SSD is critical to proper adhesion and long-term durability.

DURING APPLICATION

While applying the coating, consistent thickness is essential. Applicators use a **wet film thickness gauge** to measure freshly applied layers. This ensures coverage aligns with product specifications, preventing weak spots and premature failure. Uniform application in multiple coats, often in cross-directions, further strengthens the membrane. At this stage, **good site practice** includes avoiding dilution, protecting from direct sun, and ensuring batch sizes remain within pot life.



Before Application
Check surface soundness
and moisture content



During Application
Measure wet film
thickness



Post Application
Test adhesion



Curing
Moist cure for 3–5 days

POST APPLICATION

Once the coating cures, site verification is carried out. An **adhesion pull-off test** evaluates the bond strength of the membrane to the substrate. This is crucial for projects exposed to movement, vibration, or heavy finishes such as tiling. Another essential step is the **ponding test**, where water is retained for **24–48 hours** on the treated surface. This test reveals pinholes, voids, or weak zones under real hydrostatic pressure, ensuring watertightness before subsequent finishes are applied.

INDUSTRY TIP

Leading contractors also record these checks in a **site logbook**, complete with photos and readings. This documentation not only assures quality but also provides accountability for clients and consultants, reducing disputes and reinforcing professional standards.

TROUBLESHOOTING GUIDE – EXPANDED INSIGHTS

Even with the most advanced polymer-modified waterproofing systems, on-site conditions and application practices can sometimes lead to surface defects. By identifying the root cause and applying the right corrective measure, applicators can restore membrane performance and ensure long-term durability.

- **BLISTERS**

Blister formation is one of the most common issues seen in liquid-applied membranes. These raised air pockets usually result from trapped moisture or air beneath the coating layer. If the substrate is waterlogged instead of being properly saturated-surface-dry (SSD), the excess moisture vaporizes under heat, creating pressure pockets.

Solution: Ensure proper surface preparation by maintaining SSD—not overly wet—and use primer coats where recommended. Blisters can be cut open, the area dried, and recoated to restore uniformity.

- **CRACKS**

Cracking generally arises when the underlying substrate moves beyond the product's designed elongation tolerance. Structural joints or thermal expansion zones are especially prone to such stresses. When these aren't properly accounted for, the membrane may tear or split, exposing the surface to ingress.

Solution: Always provide expansion joint detailing, including embedding fibreglass mesh in high-movement zones. For minor cracks, reapply coating with reinforcement tape to bridge gaps. For structural cracks, civil repair should precede waterproofing.

- **POWDERY FINISH**

A chalky or powdery finish is often the result of excessive dilution with water or improper curing methods. When the polymer-to-cement balance is disturbed, the surface loses cohesion, leaving behind a weak, friable layer.

Solution: Strip loose powder, lightly abrade the surface, and reapply a fresh coat over a properly prepared base. Avoid adding extra water to extend pot life, and ensure moist-curing or shading for the specified 3–5 days.

By following these troubleshooting insights, applicators can quickly diagnose problems, correct them effectively, and maintain the system's durability, flexibility, and water-resistance.



BLISTERS



CRACKS



POWDERY FINISH



SAFETY PROTOCOLS & ENVIRONMENTAL COMPLIANCE – DEEPER LEVEL

Working with waterproofing systems requires not only technical accuracy but also strict adherence to health, safety, and environmental practices. This ensures that both workers and the surrounding environment remain protected while maintaining the long-term performance of the applied system.

WORKER SAFETY

The cementitious and polymer-modified components of waterproofing systems are alkaline, which can irritate skin and eyes. For this reason, all applicators must wear **Personal Protective Equipment (PPE)**, including gloves, protective masks, and safety goggles. Proper footwear and long-sleeved clothing further minimize accidental contact. Adequate ventilation should also be maintained in enclosed areas to avoid discomfort from dust or vapours generated during mixing and application.

ENVIRONMENTAL RESPONSIBILITY

A key advantage of modern systems such as Fastflex is their **water-based formulation**, making them non-flammable and free from harmful solvents. Once cured, the material is

chemically stable and **non-toxic to aquatic life**, ensuring that accidental run-off does not pose risks to water bodies. This makes it safer for use in projects where environmental sensitivity is a concern, such as water tanks, basements, or structures near natural habitats.

MATERIAL HANDLING & DISPOSAL

To minimize wastage, applicators should plan batch sizes according to pot life. If leftover material remains, it should not be discarded in its liquid state. Instead, allow it to fully **cure into a solid mass**, after which it can be disposed of as construction debris without environmental hazards. Tools and containers should be rinsed with minimal water, and wash-off should be collected in designated areas to avoid contamination of soil or drains.

By embedding these safety and compliance practices into daily work routines, applicators not only protect themselves but also uphold sustainable construction values, ensuring that projects meet both performance and environmental standards.

WORKER SAFETY



PPE (gloves, masks, safety goggles) is required due to cement alkalinity.

ENVIRONMENTAL RESPONSIBILITY

Fully water-based, non-toxic to aquatic life once cured



MATERIAL HANDLING & DISPOSAL

Unused material should be allowed to cure before disposal



CONCLUSION – DEEP CONTEXTUAL WRAP-UP

FASTFLEX: A LONG-TERM, TECHNICALLY VERIFIED SOLUTION

In today's fast-paced construction environment, durability and reliability are not just desirable — they are essential. **Fastflex waterproofing system** is engineered to provide a technically verified, performance-driven solution that goes far beyond temporary fixes. It is designed with a clear focus on lifecycle value, ensuring that structures remain safe, durable, and resilient for years to come.

What sets Fastflex apart is its **technical superiority**. Developed using advanced polymer-modified cementitious technology, it provides exceptional adhesion, flexibility, and crack-bridging capacity. This ensures that even when structures undergo minor movement or face challenging weather conditions, the waterproofing barrier remains intact. The system is rigorously tested under both laboratory and real-site conditions, offering contractors and engineers confidence backed by verified performance data.

Ease of use is another defining strength of Fastflex. The product is designed for quick mixing and straightforward application, minimising labour dependency and execution time. With simple coat layering and compatibility with fibreglass mesh reinforcement, applicators can achieve professional, durable finishes with less risk of error. This practicality not only accelerates project timelines but also reduces the overall cost of rework or future repairs.

By combining **cutting-edge technology** with ease of application, Fastflex positions itself as a **smart investment** in construction lifecycle management. It reduces long-term maintenance costs, prevents structural deterioration, and enhances overall project value. For stakeholders — from builders and architects to property owners — Fastflex represents peace of mind, knowing that critical infrastructure is safeguarded by a solution that performs reliably under pressure.

Ultimately, Fastflex is more than a waterproofing product. It is a **strategic partner in construction excellence**, reinforcing projects with trust, performance, and long-term durability — a true investment in the future of modern infrastructure.

ABOUT ADT INDUSTRIES – TRUSTED PARTNER OF DR. FIXIT

ADT Industries is a trusted partner of Dr. Fixit Fastflex products on major e-commerce platforms, transforming access to premium construction materials.

Our online presence connects manufacturers with end-users, ensuring high-performance solutions are readily available.

Through strategic partnerships, we offer Dr. Fixit Fastflex's innovative products directly to your doorstep, simplifying the supply chain while upholding product authenticity and quality. Whether you're tackling a small residential project or a large commercial development, world-class materials are just a click away. We also provide product support, technical guidance, and reliable logistics to keep your projects on track.

WHY CHOOSE DR. FIXIT FASTFLEX?

- Proven performance in the toughest environments
- Engineered for today's sustainability and performance standards
- Supported by a company that puts your project's success first
- Seamless access through trusted e-commerce platforms

As the construction industry continues to evolve, the partnership between innovative manufacturers like Dr. Fixit and trusted partners like ADT Industries ensures that premium materials remain accessible to professionals who demand nothing but the best.

Build smarter. Build safer. Build for the future—with Dr. Fixit Fastflex, delivered by ADT Industries.

QUALITY ASSURANCE: ISO 9001:2015 CERTIFICATION

ISO 9001:2015 is an internationally recognized standard for quality management systems that demonstrates a company's commitment to delivering consistent, high-quality products and services. This certification ensures that rigorous quality controls are embedded throughout every stage of production and delivery.

QUALITY ASSURANCE: ISO 9001:2015 CERTIFICATION

- **Consistent Quality:** Standardized processes guarantee that every product meets the same high-quality specifications, reducing variability and defects.
- **Continuous Improvement:** The standard requires ongoing evaluation and enhancement of processes, ensuring products evolve to meet changing market demands and technological advances.
- **Customer Focus:** Systems are designed around customer satisfaction, ensuring products consistently meet or exceed expectations.
- **Risk Management:** Proactive identification and mitigation of potential quality issues before they impact the final product.
- **Documentation and Traceability:** Comprehensive records ensure full accountability and enable quick resolution of any quality concerns.

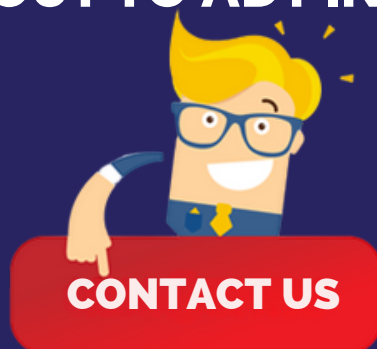
For construction professionals, the ISO 9001:2015 certification stands as a vital benchmark in the industry, providing assurance that the materials specified for projects will deliver consistent and reliable performance across various batches and differing environmental conditions. This certification not only emphasizes a manufacturer's unwavering commitment to excellence in production but also underscores their proactive approach to investing in advanced quality management systems.

These systems are meticulously designed to prioritize quality control at every stage of the manufacturing process, from the selection of raw materials to the final inspection of finished products. By adhering to rigorous performance criteria, manufacturers ensure that each batch meets the highest standards, effectively minimizing the risk of deficiencies that could impact project outcomes.

Acquiring this certification allows manufacturers to demonstrate their commitment not only to quality but also to sustainability and safety in construction practices. This dedication is increasingly important in today's eco-conscious market, where professionals seek materials that not only perform well but also align with environmental responsibility. Moreover, the innovation embedded within these quality systems enables manufacturers to adapt to emerging technologies and methodologies, further enhancing the reliability and applicability of their products.

By trusting materials with the ISO 9001:2015 certification, construction professionals are empowered to make informed decisions, boosting the durability and integrity of their projects and ultimately contributing to the long-term success and resilience of the built environment.

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