

THE ULTIMATE GUIDE TO PU SEALANTS

Everything You Need to Know About Sealing,
Bonding & Protecting Concrete Joints



INDUSTRIES
— ISO 9001: 2015 COMPANY —



THE ULTIMATE GUIDE TO ADT SEAL MPU 150

Strength, Flexibility & Global Performance

In the rapidly advancing world of construction and infrastructure, building materials are evolving at lightning speed—but one silent, often overlooked component continues to play a critical role in the success or failure of any project: joint sealants.

This is where PU (Polyurethane) sealants come into play. Over the past two decades, PU sealants have gradually become the gold standard in sealing technology, replacing older solutions such as silicones and basic MS polymers. PU sealants offer a unique combination of flexibility, strong adhesion, and long-term performance across a wide range of applications.

YOU'LL DISCOVER

- The science behind PU sealants and their rising dominance
- Common joint-related failures and their preventable causes
- Step-by-step installation & maintenance guidelines
- Real-world applications across industries
- A full breakdown of ADT SEAL MPU 150, India's premium hybrid PU sealant solution
- Comparative insights with global brands and standards
- Warranty, certifications, and customer support resources



The focus of this guide is ADT SEAL MPU 150, a state-of-the-art polyurethane-based elastomeric sealant formulated to meet the needs of modern construction challenges — from skyscrapers to metro tunnels, hospitals to homes.

Whether you're new to the industry or a seasoned professional, this eBook simplifies complex material science into clear, actionable knowledge backed by field-tested performance.

PU SEALANTS

The Backbone of Modern Sealing Solutions



In the world of modern construction, the smallest detail often holds the greatest importance – and in no area is this more evident than in joint sealing. Joints are everywhere in a structure: between tiles, concrete slabs, aluminium frames, glass panels, and more. These tiny gaps endure the full force of structural movement, moisture infiltration, and temperature variations. If left unprotected or sealed with substandard materials, they become gateways for failure.

This is where PU (Polyurethane) sealants come into play. Over the past two decades, PU sealants have gradually become the gold standard in sealing technology, replacing older solutions such as silicones and basic MS polymers. PU sealants offer a unique combination of flexibility, strong adhesion, and long-term performance across a wide range of applications.

In this guide, we explore one of the finest modern polyurethane sealants – ADT SEAL MPU 150 – and how it redefines performance expectations across industries.

CONSTRUCTION'S HIDDEN WEAKNESS: THE TRUTH ABOUT JOINT FAILURES

In any building—whether residential, commercial, or industrial—the true vulnerabilities are often not in plain sight. Beneath the polished finishes and impressive structural designs lie the critical joints: expansion gaps, tile joints, window perimeters, floor-to-wall transitions, and facade junctions. These areas silently endure constant movement caused by temperature changes, structural shifts, vibrations, and daily wear and tear.

Over time, if these joints are sealed with low-quality or mismatched materials, the consequences can be serious. Cracking, water leakage, mold formation, damp walls, and even long-term structural weakening can result. These issues not only affect the building's integrity but also lead to expensive repairs, safety concerns, and loss of property value.

WHY DO JOINT FAILURES HAPPEN SO OFTEN?

Joint failures are surprisingly common, and the reasons are just as preventable as they are overlooked:

- **Poor Workmanship** – Unskilled application often leads to uneven or weak seals.
- **Wrong Product Selection** – Generic sealants used in demanding environments quickly break down.
- **Inadequate Surface Preparation** – Applying sealant on dusty, damp, or uncured surfaces affects adhesion.
- **Lack of Awareness** – Many decision-makers don't realize how critical joint sealing is until failure occurs.

That's why professionals increasingly rely on high-performance PU sealants like ADT SEAL MPU 150. When used correctly from the start, these advanced sealants create flexible, durable, and watertight barriers that prevent joint failure and extend the building's life – saving time, money, and peace of mind.

PU SEALANTS

The Backbone of Modern Sealing Solutions

Imagine a newly constructed high-rise with stunning architecture, premium finishes, and thoughtfully designed interiors. It looks flawless—until the first monsoon arrives. Suddenly, hairline cracks appear around window frames. Water begins to seep in through terrace joints. Within months, damp patches and ceiling leaks start to emerge. Residents raise complaints. Maintenance teams are overwhelmed. The building's reputation — and the builder's — takes a serious hit.

🚫 SEALANTS ARE NOT JUST COSMETIC — THEY ARE CRITICAL

Many still treat sealants as a minor finishing touch, applied at the end of a project. In reality, a high-quality joint sealant functions as a first line of defence — against water intrusion, air leaks, structural stress, and even noise.

By choosing the right sealing solution, like ADT SEAL MPU 150, developers and contractors gain long-term benefits that go far beyond aesthetics:

✅ PRESERVES STRUCTURAL INTEGRITY

Prevents cracks and water ingress that lead to corrosion, spalling, and surface degradation.

✅ ENHANCES ENERGY EFFICIENCY

Seals gaps that contribute to energy loss, helping maintain consistent indoor temperatures.

✅ IMPROVES INDOOR AIR QUALITY

Stops mold and mildew growth caused by moisture seepage — essential for occupant health.

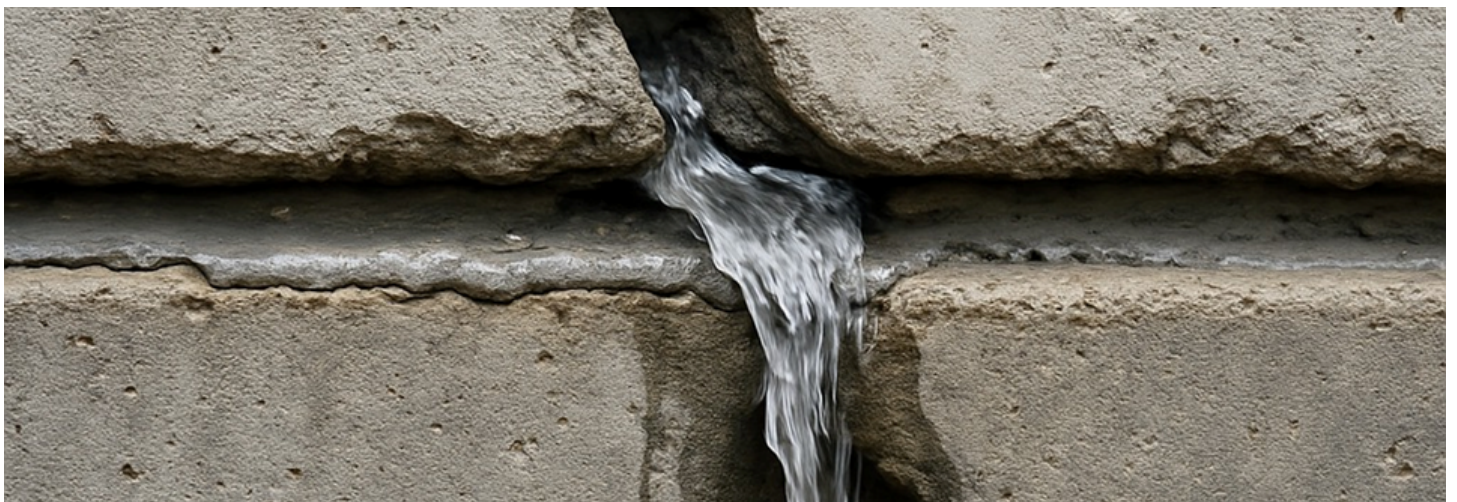
✅ REDUCES LONG-TERM COSTS

Minimizes expensive repairs, repainting, and emergency maintenance calls.

✅ SUPPORTS SUSTAINABLE CONSTRUCTION

Reduces material wastage and extends the life of building components.

Ultimately, joint protection is not just about plugging gaps — it's about building smarter, safer, and more sustainably. When sealants like MPU 150 are part of the planning, the difference is seen not just in performance, but in peace of mind.



INTRODUCING ADT SEAL MPU 150

Modern Sealing, Mastered

ADT SEAL MPU 150 is a high-performance, single-component polyurethane-based elastomeric joint sealant designed to meet the challenges of contemporary construction



It's not just a sealant — it's a sealing system backed by chemistry, testing, and real-world success.

Unlike generic sealants that work well on paper but fail in tough site conditions, MPU 150 is specially formulated for multi-surface bonding, long-term flexibility, and environmental resistance. It is paintable, highly elastic, easy to gun-apply, and suitable for both vertical and horizontal joints. Most importantly, it is VOC-compliant and environmentally safe — making it the preferred choice for green buildings and sustainability-focused projects.

WHERE IT PERFORMS

Cross-Industry Applications of ADT SEAL MPU 150

What makes ADT SEAL MPU 150 stand out is not just its strength or flexibility — it's the sealant's exceptional versatility across a wide range of industries and project types. From high-rise towers to industrial floors, it delivers dependable performance under diverse conditions.

CONSTRUCTION & REAL ESTATE

Whether it's movement joints, facade junctions, or precast concrete panels, MPU 150 provides reliable, flexible sealing. It ensures long-term weather resistance, making it a preferred choice for both new construction and renovation projects.



INDUSTRIAL & WAREHOUSE FACILITIES

MPU 150 offers chemical-resistant, non-sag sealing for factory floors, chemical processing zones, cold storage rooms, and more. It resists degradation from harsh industrial conditions, ensuring clean and safe environments.



WHERE IT PERFORMS

Cross-Industry Applications of ADT SEAL MPU 150

COMMERCIAL & RESIDENTIAL SPACES

From tile joints and window perimeters to curtain walls, balconies, and glass facades, MPU 150 adapts to architectural requirements without compromising aesthetics. Its paintable surface and neat finish make it an excellent choice for visible joints.



TRANSPORTATION INFRASTRUCTURE

In high-impact environments like bridges, flyovers, metro stations, and tunnels, the sealant performs under mechanical stress, thermal movement, and vibration. Its durability and adhesion make it ideal for infrastructure that must withstand constant dynamic load.



FEATURES & BENEFITS

of ADT SEAL MPU 150

What sets MPU 150 apart is the balance it achieves between technical performance and practical usability. Here's why professionals prefer it

- **Strong Adhesion:** Binds effectively to concrete, wood, PVC, metal, glass, and ceramic – without peeling or detachment.
- **Weatherproof & UV Stable:** Performs in harsh climates – from tropical heat to monsoon moisture.
- **Paintable Surface:** Allows aesthetic continuity, especially in visible interiors and facades.
- **Non-sagging Formula:** Ideal for vertical applications and overhead joints.
- **Green Compliant:** With low VOC content, it meets LEED and IGBC standards for sustainable construction.



Each of these features is engineered to provide long-term protection without compromising on ease of use.

FEATURES & BENEFITS: ENGINEERED FOR RELIABLE PERFORMANCE

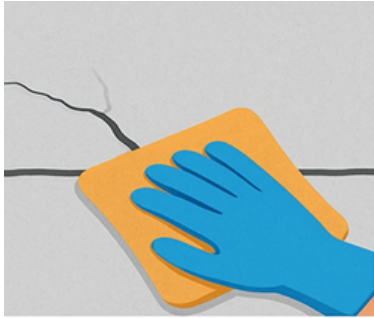
ADT SEAL MPU 150 is thoughtfully designed to deliver both high performance and practical advantages on-site. Below is a quick overview of its standout features and the real-world benefits they bring to every project:

FEATURE	BENEFIT
High Movement Capacity	Absorbs expansion and contraction without cracking – perfect for dynamic joints.
Low VOC Content	Safe for indoor use and compliant with green building norms like LEED & IGBC.
Non-Sagging Formula	Ensures clean, controlled application on vertical and overhead surfaces.
Paintable Surface	Allows post-application painting to match interiors or facades seamlessly.
UV & Weather Resistant	Withstands sun, rain, and temperature changes – ideal for exterior use.
Excellent Adhesion	Bonds to multiple materials including concrete, metal, glass, wood, and ceramic.
Long-Term Durability	Minimizes need for rework, repairs, or maintenance – ensuring peace of mind.

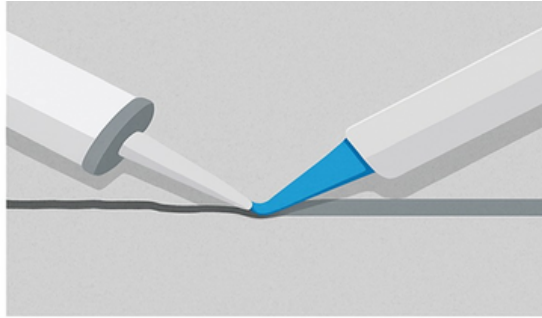
INSTALLATION GUIDE

Step-by-Step for Optimal Results

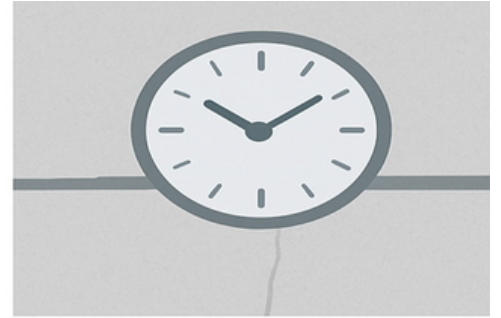
Proper installation is essential to unlock the full performance of ADT SEAL MPU 150 and to ensure the validity of warranty and long-term durability. Whether you're sealing joints in a residential space or a large infrastructure project, following these steps ensures consistent, professional outcomes.



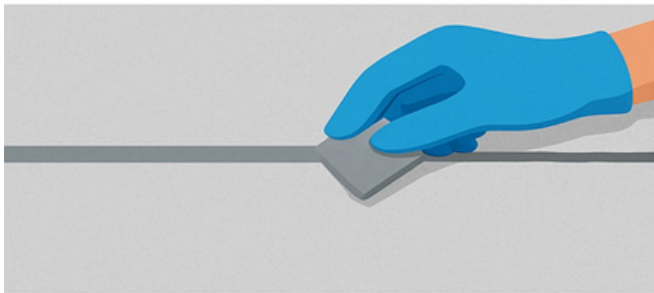
CLEANING



APPLYING SEALANT



CURING



SMOOTHING



MAINTENANCE CHECKS

✓ STEP-BY-STEP INSTALLATION PROCESS

- **Surface Preparation**

Ensure the surface is clean, dry, and free of dust, oil, or loose particles. Moisture or contamination can affect adhesion and longevity.

- **Priming (If Required)**

For highly porous or difficult surfaces, apply a compatible primer to improve bonding strength. Always follow the manufacturer's recommendation.

- **Masking for Clean Edges**

Apply masking tape along both sides of the joint to define boundaries and achieve neat, straight edges after application.

- **Sealant Application**

Using a standard caulking gun, apply MPU 150 in a smooth, continuous motion. Ensure the sealant fills the entire joint depth evenly.

- **Tooling the Joint**

Within 10 minutes of application, tool the sealant using a moistened spatula or finger to press it firmly into the joint and shape it neatly. Remove masking tape immediately after tooling.

- **Curing Time**

Allow the sealant to cure undisturbed for 24–48 hours, depending on joint size, humidity, and temperature. Avoid water contact during this period.

- **Final Inspection**

Once cured, inspect the sealant for uniform adhesion, smooth finish, and full coverage. Touch up if necessary for a perfect result.

MAINTENANCE & LIFECYCLE EXPECTATIONS

To ensure optimal performance and extended service life, regular inspection and proper upkeep of sealant joints is essential. ADT SEAL MPU 150 is engineered for durability, but like any building component, it benefits from routine care.

LIFECYCLE EXPECTANCY

Depending on environmental conditions and application quality, MPU 150 delivers long-lasting protection

- Up to 15 years in moderate, dry climates
- 10–12 years in tropical or humid regions
- Spot re-application in worn or high-movement areas can further extend performance life

MAINTENANCE BEST PRACTICES

- Inspect sealed joints every 2–3 years for signs of wear, detachment, or cracking
- Reapply sealant where adhesion appears weakened or degraded
- Avoid aggressive chemical cleaners or pressure washing near sealed joints
- For exterior joints, check after extreme weather conditions (monsoons, heatwaves)

Consistent maintenance ensures your sealant continues to protect against water ingress, structural stress, and material fatigue – saving you from costly repairs down the line.

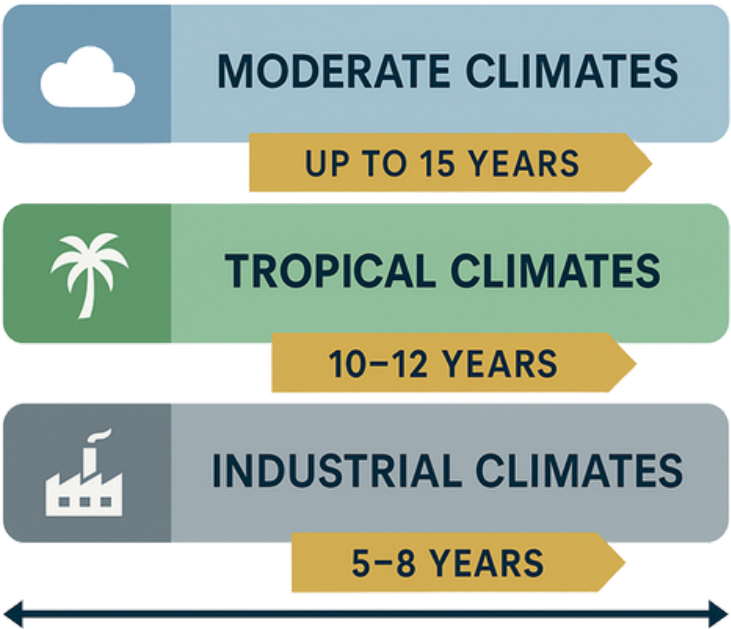
TECHNICAL DATA SNAPSHOT

Here’s a quick-reference table featuring the core technical properties of ADT SEAL MPU 150. These specifications help engineers, architects, and contractors assess suitability for project requirements.

PARAMETER	VALUE
Movement Capability	±25%
Shore A Hardness	30–35
UV Resistance	Excellent
Elongation at Break	>600%
Skin Formation Time	~45 minutes
Full Cure (at 2 mm depth)	24–48 hours
Temperature Resistance	–40°C to +90°C

LIFECYCLE EXPECTATIONS

WITH REGULAR MAINTENANCE



WARRANTY & CUSTOMER SUPPORT

We stand by the performance of ADT SEAL MPU 150 — and we’re here to support you every step of the way. From warranty assurance to on-site guidance, our team ensures a seamless experience for contractors, architects, and clients alike.

PRODUCT WARRANTY

- 10-Year Limited Warranty under recommended installation and site conditions
- Covers sealant performance, adhesion, and flexibility

TECHNICAL SUPPORT

- Technical Support
- On-Site Assistance from trained application experts for large-scale or complex projects
- Support during application, surface prep, and product selection



Our support doesn’t end at sale — it continues through application, project completion, and beyond. You’re not just choosing a sealant. You’re choosing a partnership in quality.

GLOBAL PRODUCT COMPARISON

ADT SEAL MPU 150 vs Global Brands

BRAND	STRENGTHS	WEAKNESSES
ADT SEAL MPU 150	Flexible, durable, eco-friendly	–
Sika PRO-3	Strong brand, high durability	Needs primer, costly
Bostik 2720 MS	Good adhesion, MS polymer	Cures poorly in humid conditions
Dow Corning 789	Silicone-based, weatherproof	Non-paintable, premium pricing

✔ MPU 150 VALUE EDGE:

- Competitively priced
- Paintable
- Excellent adhesion range
- Eco-compliant + local support

CONCLUSION

ADT SEAL MPU 150 ISN'T JUST A SEALANT—IT'S A GLOBAL-STANDARD, HIGH-PERFORMANCE SOLUTION FOR MODERN CONSTRUCTION NEEDS. ITS DURABILITY, FLEXIBILITY, AND SAFETY COMPLIANCE MAKE IT AN IDEAL CHOICE FOR DEMANDING PROJECTS ACROSS SECTORS.

AS CONSTRUCTION TECHNOLOGIES EVOLVE, ONLY THOSE MATERIALS THAT CAN ADAPT TO MULTIPLE ENVIRONMENTS AND MEET INTERNATIONAL STANDARDS WILL THRIVE—JUST LIKE ADT SEAL MPU 150.

READY TO ELEVATE YOUR NEXT PROJECT?

Call: 8080098992

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SEAL SMARTER, LAST LONGER – ADT SEAL MPU 150.