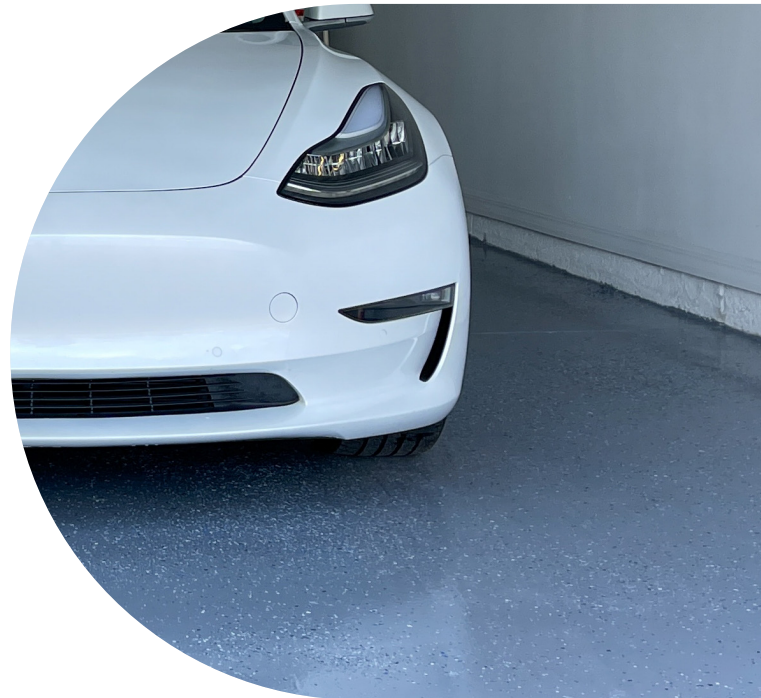


Spec Sheet

Lava 15 Poly System

High Traffic Concrete



Reinforced Coating Membrane for High Traffic Concrete

Lava 15's polyurethane membrane system for high traffic concrete areas delivers an incredibly resilient weatherproof barrier for a wide range of pedestrian and vehicle-based surfaces. Incorporate industrial-grade shielding for walkways, bridge decks, stadium stands, parking garages, and much more. The system's flexible, waterproof membrane provides the rapid curing, superior tear strength, and extreme weather performance necessary to withstand daily impact in high traffic areas.

Lava 15's versatility, fast application, and performance achieves long-term cost savings for property owners and facility managers. Formulated with extraordinary mechanical elasticity, the system is highly resistant to any weather induced substrate movement or dilation, thereby reducing maintenance costs. Lava 15's deep penetrating membrane galvanizes practically any concrete surface and will extend service life, eliminate corrosion, and help to minimize long term maintenance costs.

The coating system's primer, highly breathable membrane, and strong top coat are specifically formulated to address UV, acid rain, frost, chemical, thermal shock, and water intrusion. Exhibiting thorough adhesion and rapid layer bonding characteristics, Lava 15 acts as a formless, jointless barrier, allowing owners to protect their building assets year-round from the wear and tear of foot and vehicle deck traffic.

Advantages

- Superior weatherability for enduring, watertight protection.
- Rapid curing capabilities surpass traditional methods.
- Seamless design with no joints.
- Long-lasting, architectural-grade finish resists corrosion.
- Exceptional chemical and UV resistance.
- Extreme durability, thermal shock, withstands both cold and hot extreme temperature fluctuations
- Highly flexible and elastic under extreme temperature ranges (cold & hot)
- Zero maintenance required.
- Ponding water-resistant.
- Chemical-resistant for added protection.
- Versatile application.
- Universal bonding to almost any surface.
- Vapor permeable (breathable).
- Easy detailing for a seamless finish.

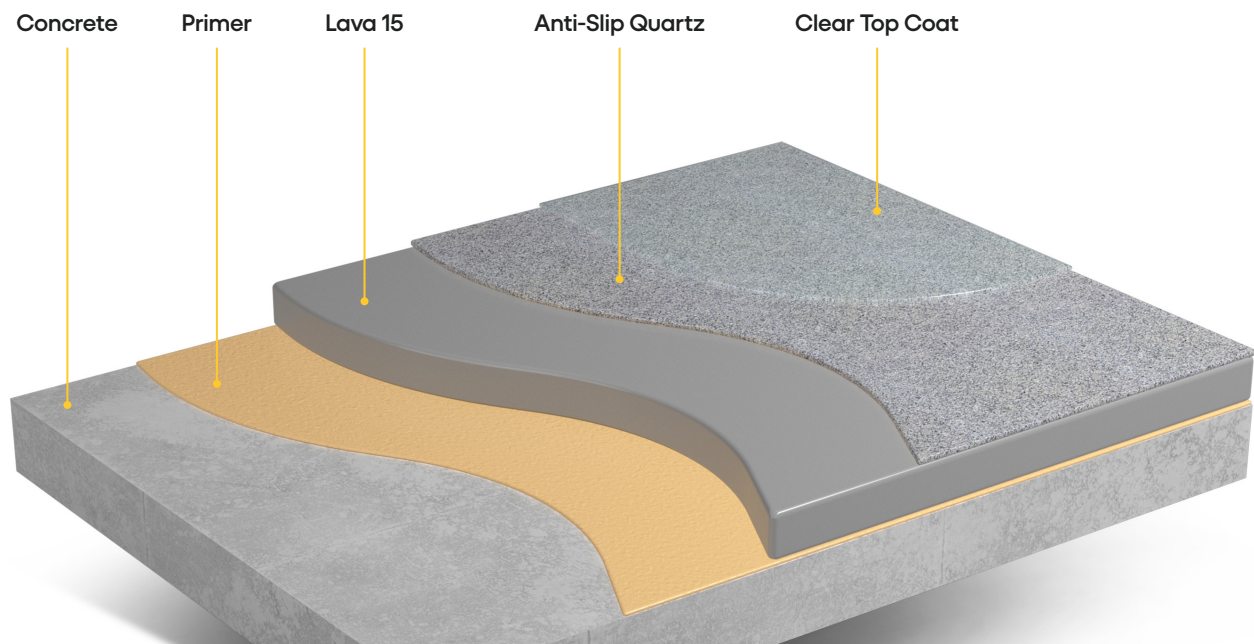


Applications & Compatibilities

All Traffic Applications

- Vertical Applications
- Parking Garages
- Concrete Buildings, Bridge Decks, Tunnels, Stadium Stands, Parking Lots, etc.
- Pedestrian and Automotive Traffic Decks, and Outdoor Areas
- Terraces, Patios, and Balconies
- Walls

Application Overview



Lava 15 Poly Membrane

Technical Data

PROPERTY	RESULTS	TEST METHOD
Elongation at Break	< 600 %	ASTM D 412 / DIN 52455
Tensile Strength	> 4 NI mm2	ASTM D 412 / DIN 52455
Water Vapor Permeability	> 25 gr/m2/day	ISO 99932:91
Resistance to Mechanical Damage by Static Impression	High Resistance (class: P3)	EOTA TR-007
Resistance to Mechanical Damage by Dynamic Impression	High Resistance (class: P3)	EOTA TR-006
Resistance to Water Pressure	No Leak (1m water column, 24h)	DIN EN 1928
Adhesion to concrete	>2.0 N/mm2 (concrete surface failure)	ASTM D 903
Crack Bridainia Capability	Up to 2 mm crack	EOTA TR-008
Hardness (Shore A Scale)	65-70	ASTM D 903
Resistance to Root Penetration	Resistant	UNE 53420
Solar Reflectance (SR)	0.87	ASTM E903-96
Solar Emittance (e)	0.89	ASTM E408-71
Thermal Resistance (176 °F for 100 days)	Passed. No significant changes	EOTA TR-011
UV Accelerate - Aging in the Presence of Moisture	Passed. No significant changes	EOTA TR-010
Resistance After Water Aging	Passed	EOTA TR-012
Hydrolysis (5% KOH, ? days cycle)	No significant elastomeric channel	Inhouse Lab
Construction Material Fire Class	B2	DIN 4102-1
Resistance to Flying Sparks and Radiation Heat	Passed	DIN 4102-7
Service Temperature	-22 °F to +302 °F	Inhouse Lab
Shock Temperature (20 min)	392 °F	Inhouse Lab
Rain Stability Time	3-4 hours	Conditions: 68 °F, 50% RH
Light Pedestrian Traffic Time	18-24 hours	Conditions: 68 °F, 50% RH
Final Curing Time	7 days	Conditions: 68 °F, 50% RH
Chemical Properties	Good resistance against acidic and alkali solutions (5%), detergents, seawater, and oils.	



Lava 15 System Installation

I. Initial Roof Surface Inspection

Prior to applying the Lava 15 coating system, any residual repairs should be performed. It is important to inspect and examine all elements of the concrete surface, including but not limited to:

- Wet areas or areas with sitting water must be cut out and replaced before application
- Drainage performance
- Water leaks
- Miscellaneous penetrations
- Existing corrosion or rust areas
- HVAC flashing and/or debris
- Seams, terminations, and reglets
- Coping and flashing
- Sleepers and pitch pockets
- Sign or display anchorage
- Miscellaneous anchored devices, equipment, or structural supports

II. Surface Preparation

For optimal results, careful surface preparation is important. The surface should be free of any pollution that could compromise the membrane's adhesion.

- a. For best results, the surface should be washed clean, free of loose materials, stains, grease, dust, debris, and other contaminants.
- b. System can be spread out on concrete surfaces using a roller, brush, squeegee, or airless spray. The use of polyester fabric matting for reinforcement is optional.

- c. Optimum moisture shouldn't be higher than 8%. Do not use Lava 15 system on wet surfaces.
- d. Compressive strength of substrate should be at least 25 MPa and viscous strength properties should be at least 1.5 MPa.
- e. A grinding machine can be used to remove dust, filth, fats, oils, organic materials, and old loose coatings from existing concrete.
- f. Smooth off any surface imperfections found along membrane coverage area.
- g. Cracks, joints, and/or voids throughout surface should be filled with **Lava PU Mastic**.
- h. Utilize polyester tape or geotextile for flashing drains, joints, and base angles.
- i. Ensure that all adjoining surface areas that are not to receive the Lava 15 membrane be thoroughly masked and protected.
- j. Setup a suitable, easy-to-access workstation for the sorting and mixing of all membrane materials.
- k. Schedule and synchronize applications of each Lava 15 layer for accurate coating times. Make sure to apply the entire system during temperature conditions between 41 °F and 95 °F.



III. Installation Instructions

For Concrete

For newly set concrete structures, at least 28 days curing time is required before applying Lava 15. Both new and existing concrete surfaces must be completely dry prior to application. Oil, grease, curing compounds, loose particles, moss, algae growth, laitance, friable matter, dirt, bituminous products, and previous water proofing materials must be removed.

Application Tools & Materials Required

System can be spread out on concrete surfaces using a roller, brush, squeegee, (or airless spray without catalyst, minimum 4500psi). The use of polyester fabric matting for reinforcement is required.

Installation:

1. For new surfaces, ensure that concrete has undergone at least 28 days of curing time.
 2. Wash entire surface clean, removing all surface debris, dirt, embedded stains, chemicals or oils, and organic matter.
 3. Inspect and verify that the entire surface is completely dry and free of wet spotting.
 4. **Primer**
Prime the entire surface area, and around penetrations, with **Lava 15 Quick Primer** at a rate of one gallon per 250-350 sq. ft. and allow for a minimum of 15-30 minutes dry time. Concrete or cement screed are highly absorbent surfaces and require cure times according to manufacturer specifications.
 5. **Membrane**
 - a. Cracks, joints, and/or voids throughout the concrete surface should be filled with Lava PU Mastic.
 - b. Wall-to-floor connections, joints, 90° angles, chimneys, pipelines, waterspouts (siphon), etc. should always be reinforced with geotextile matting or equivalent, overlapping strips by 5-10 cm to strengthen the entire surface.
 - Use **Lava 15 Vertical Membrane** for vertical and sloped surfaces, specifically formulated with high viscosity for easy application on parapet walls and other vertical structures.
 - Use **Lava 15 Detail Membrane** for patching or filling large holes, gaps, and other concrete penetrations, specifically formulated for rapid, bubble free curing over detail structures.
 - c. A cut piece of fabric can be applied over still-wet Lava 15, then pushed inward until fully absorbed. Once fully absorbed, saturate this area again with additional Lava 15.
 - d. Coat the entire surface area with Lava 15 at a rate of 18.4 sq. ft. per gallon.
 - e. By incorporating **Lava 15 Catalyst**, the entire surface can be covered in a single coat. Thoroughly mix 0.19 gallons of Lava 15 Catalyst directly into a 6.6-gallon bucket of membrane, mix thoroughly with a drill mixer for 5 minutes.
6. **Topcoat Anti-Slip**
Apply the **Lava 15 Top Clear Coat** evenly across the entire area at a rate of 1 gallon per 100 sq. ft. When using a colored Clear Top Coat, along with Quartz or Aggregate for an Anti-Slip Finish, the consumption rate is typically halved due to the textured granular surface, requiring approximately 1 gallon per 100 sq ft, depending on the size of the aggregate quartz.
 - a. For final color stable, chalk-free surface appearances, apply no more than 1 or 2 layers of Lava 15 Clear Top Coat.
 - b. For final dark colors, additional custom colors can be ordered.
7. **Curing & Finishing**
Do not apply any Lava 15 layers thicker than 2.5 mm (dry film). For ideal curing, the temperature range during/after application should be between 41 °F and 95 °F. If the temperature is too high, curing is hastened. If the temperature conditions are too low, curing is delayed.



Lava 15 Application Term Rates

Coverage Term	Primer (Gal/Sq)	DFT mils	Geotextile (6 mils)	Lava 15 Gal/Sq	DFT Mils	Catalyst compatible	Topcoat Gal/Sq	DFT mils	Total DFT mils	Warranty
15 years	0.47	2		3.6	55		0.88	8	65	Platinum

* DFT (Dry Film Thickness) is rounded to nearest mil, and is theoretical. Actual DFT will vary dependent on substrate profile, application technique and waste factor.

