



Polyurea Flex

Polyurea Flex is a two-component, flexible, 100% solids, pure polyurea waterproofing coating with excellent chemical and mechanical resistance. Its hot spray application ensures rapid curing across a broad range of environmental conditions, allowing for early installation and service readiness.



FEATURES/BENEFITS

- Seamless application
- Solvent-free
- Flexible
- Excellent bond strength
- Excellent abrasion-resistant
- Chemical resistant
- VOC compliant

USES

Waterproofing for

- Basements and underground structures
- Bridges, Tunnels, and Subways
- Parking decks and podiums
- Flat roofs and terraces
- Water-retaining structures – pools, ponds, and sewage tanks
- Lining of non-potable tanks, wastewater tanks.
- Chemical containment areas and industrial tanks
- Warehouses, loading docks, and factory floors
- Loading docks and access ramps.

MANUFACTURER

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STANDARDS / CERTIFICATIONS

Applicable Standard

- ISO 34-1
- ASTM D2240
- ASTM D4060
- ASTM D412
- ASTM C1305

Packaging

- Part A (ISO): 225 kg MS drum
- Part B (POLY): 205 kg MS drum

Suitable Substrates

- Concrete
- Cement board
- Steel
- Galvanized sheet
- PU foam
- Bituminous felt

Suitable primers:

- Guard Prime EPM
- Guard Prime SB
- Guard Prime EP

Coverage: 1.07 kg/m²/mm

Substrate	Recommended minimum thickness
Concrete	1.5 mm
Steel	1.0 mm

Note: Coverage may vary due to substrate condition, applied thickness, and overspray wastage.

Shelf Life

Factory sealed containers are guaranteed for one (1) year when stored between 10°C and 30°C in sealed drums. Protect from direct sunlight.

Limitations

- Application only by two-component hot spray system.
- Do not apply when relative humidity exceeds 90% or substrate temperature is less than 3°C above dew point.
- Concrete substrate must achieve minimum 75% design compressive strength.
- Colour change may occur under UV exposure; this does not affect performance. For exposed areas, apply UV-resistant topcoat Guard PU (pigmented).

Cautions

- Contains Portland cement and silica sand. May irritate eyes and skin. Avoid contact with eyes or prolonged contact with skin. In case of contact, flush thoroughly with water.
- Do not take internally. Avoid breathing dust. Wear a respirator in dusty areas.
- Keep out of reach of children.
- Protect finished work until fully cured
- Consult SDS for detailed safety information.

TECHNICAL DATA

Properties	Values
Component	Part A: Isocyanate Part B: Polyamine
Colour	Part A: Clear Part B: Clear or Grey
Viscosity @ 25°C, mPas	Part A: 500 - 1000 Part B: 400 - 600
Density, g/cc	Part A: 1.12 ± 0.02 Part B: 1.02 ± 0.02
Density mix, g/cc	1.07 ± 0.02
Solid content	~100%
Curing	5 minutes- Foot traffic 15 – 20 minutes- Light traffic 24 hrs- Full service condition
Tensile strength, ASTM D638, MPa	≥ 18
Elongation at Break, ASTM D412	>350%
Crack bridging ability, ASTM C1305	3.2 mm Passes
Shore D Hardness	≥ 45
Tear strength, ISO 34-1 method A, N/mm	≥ 15
Abrasion resistance, ASTM D4060, mass loss in milligrams	CS10/1000mg/1000 cycles: < 10 mg CS17/1000mg/1000 cycles: < 10 mg
Pull off test, ASTM D 4541, N/mm ²	Concrete: ≥ 1.5 Steel : ≥ 5
VOC (SCAQMD Rule 1113/ USEPA 24)	< 5 g/L

Note: The above technical data reflects laboratory test procedures conducted in laboratory conditions at 25 ± 2 °C and 55 ± 5 % RH. The mechanical performance is carried out at min. 1.5 mm film thickness.. Specifications subject to change without notification. Results shown are typical but reflect test procedures used. Actual field performance will depend on installation methods and site conditions.

INSTALLATION

Application Information:

Mixing ratio, Part A ISO: Part B Poly	1 :1 by volume
Material temperature/ Hose temperature, °C	65 - 70
Ambient temperature, °C	0 - 48
Pressure, bars	5 - 6

- Apply the material using suitable air-driven or electrically operated, heated plural-component spray equipment. Both components shall be preheated to a temperature range of 65 -70 °C prior to application.
- A spray trial shall be carried out prior to commencement of application to verify correct equipment setup, including hose temperature, material temperature, pressure, and spray parameters.
- For pigmented Poly part A, thoroughly mix the amine component with a drum mixer until a homogeneous mixture and color is obtained.
- For additional details, refer to the applicable Method Statement.

Surface Preparation

Concrete: Concrete surfaces shall be structurally sound, adequately cured, clean, dry, and free from dust, laitance, oil, grease, curing compounds, and any other contaminants that may impair adhesion. Substrates shall be mechanically prepared or primed as specified.

Surface grinding may be required to correct unevenness and achieve the required profile. All blowholes, pinholes, and minor surface defects shall be repaired using the recommended filler prior to primer application. For detailed substrate preparation requirements and primer selection, refer to the applicable Method Statement.

Steel: All welds shall be continuous, smooth, and free from defects to ensure the integrity of the coating system. Welding seams shall be free from porosity, undercuts, cracks, and pinholes. Any defects identified shall be rectified by welding and/or grinding. Weld spatter shall be completely removed. Sharp edges shall be ground or rounded to a minimum radius of 2 mm to ensure the specified coating thickness can be achieved.

The steel surface shall be of first-class quality and shall not exhibit corrosion beyond Grade B in accordance with ISO 8501-1:2007. Any laminations shall be removed prior to surface preparation.

Steel surfaces shall be blast cleaned to Sa 2½ in accordance with ISO 8501-1:2007.

Application

- The client/ main contractor must be satisfied that the applicator has suitable equipment and expertise and will follow the procedures detailed in this datasheet and in the Polyurea Flex Method Statement.
- Do not dilute Polyurea Flex, Guard Prime EP, Guard Prime EPM, or Guard Prime SB under any circumstances.
- For absorbent substrates like concrete, cement board, or over masonry surface, Guard Prime EPM, Guard Primer EP or Guard Prime SB is recommended. Guard Prime SB is high penetrating and absorbent and the subsequent Polyurea application can be done after 1 hour once the primer is tack-free.
- For non-porous substrates like steel, galvanized sheet, or PU Foam, Guard Primer EP is recommended. Polyurea Flex can be applied after reaching the primer tack-free stage, i.e., 6 – 8 hours (depending upon substrate/ambient temperature).
- The normal recommended minimum applied thickness of Polyurea coating is 1.5mm, using a crosshatch spray pattern.

- The maximum thickness is 3mm for a single coat application. A rough finish is achieved with spraying at a distance and is recommended for subsequent finishes.
- The applied product can be walked on carefully after approximately 5 mins (with flat soles). Contact Laticrete Technical Service for further advice.
- For roof waterproofing exposed to sunlight, a subsequent UV-resistant topcoat – Guard PU (Pigmented) is recommended in a single coat.
- Refer to the Polyurea Flex Method Statement for further details.

Cleaning

Clean tools and mixer with recommended diluents for cleaning the hose pipes and spray gun. Recommended diluent: Propylene carbonate or Dioctyl phthalate.

AVAILABILITY AND COST

Availability

LATICRETE® materials are available worldwide. For distributor information, please contact us by email at: enquiry@laticrete.me or, visit www.laticrete.me

Cost

Contact a LATICRETE closer distributor to obtain complete information and cost.

WARRANTY

The supplier warrants this product will not deteriorate under normal conditions and use the warranty validity of one (1) year. The product is subject to the terms and conditions stated in the LATICRETE Product Warranty. Please consult our technical support for further information.

TECHNICAL SERVICES

Technical assistance

For information contact us by email at: enquiry@laticrete.me

Technical and safety literature

To obtain technical and safety literature, please visit our website at: www.laticrete.me

Warning: The information and the instructions in the data sheet, although based on knowledge gained through years of application, are indicative. LATICRETE unable to directly control the installation conditions and modalities of application of products, do not assume any liability arising from their implementation. Those who want to use the LATICRETE products must conduct adequate tests to determine the site specifications. Results shown are typical but reflect test procedures used. Actual field performance will depend on installation methods and site conditions.