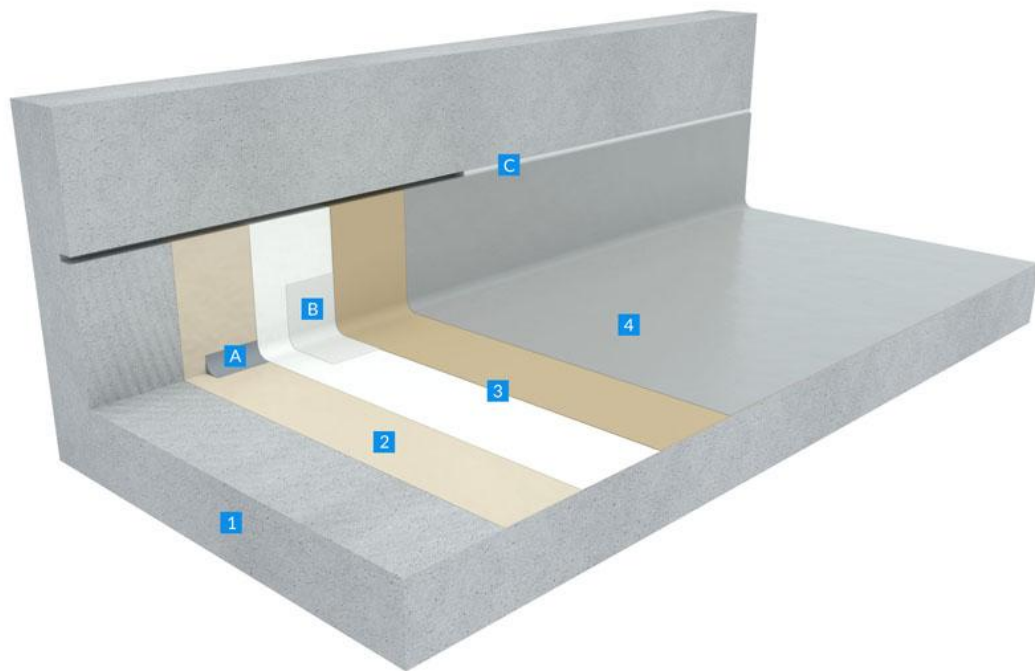


Non-accessible exposed roofs and decks, masonry structures
Liquid Applied Waterproofing (LAW):
PARATHANE System - 1

Substrate & Use of roof	Finishing	Standard warm roof /inverted roof
Concrete deck Use: Decks and roofs that are unsuitable for pedestrian traffic, penthouses, domes, canopies, (or unsuitable parts such as gutters, drain channels, planter boxes, cupolas...)	Smooth glossy surface finishing (Finish UV-Clear Coloré)	Without insulation



- **Substrate**

The load bearing structure (concrete) must comply with all associated national standards and regulations, ensuring that the load bearing capacity is sufficient for any additional loads imposed upon the construction. It is important to consider the possibility of future deflection of the construction when designing roof drainage.

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- **Preparation:** The bearing elements and substrates must comply with local technical standards. After proper cleaning of the roof area, a complete level control shall be carried out by the Contractor. Slope and planarity shall be carried out with the following tolerances:
- **Slope:**

All slopes. For zero slope: stagnating water may have harmful effects on the aesthetics (fouling) or can be an annoyance to the user. In tropical and equatorial climate regions (example in Sub-saharan Africa or Central-America) the minimum allowable slope on concrete masonry substrates is 2% for exposed Parathane systems (please contact BMI Technical Department for details). Making sure of the proper flatness of the substrate, as well as of any slopes and reserved recesses for water drainage.
- **Levels:**

Tolerances for planarity shall be:

 - 10 mm with a 2 meters straight edge.
 - 3 mm with a 200 mm straight edge.
- **Surface:**

Prepare substrate surfaces thoroughly prior to application of new roofing materials. This is particularly important for refurbishment applications. Providing a smooth, even, sound, free of dust, grease and oil, foreign chemicals, curing compound, clean and dry substrate minimises the likelihood that underlying deficiencies will cause premature deterioration or even failure of the new roofing system.

Elimination of all non-adherent and/or powdery parts (generally by mechanical abrasive polishing followed by careful vacuuming, and, if necessary, by grit blasting, chemical stripping, high pressure cleaning).

Making sure the substrate is dry when the Liquid Waterproofing System is applied.

Concrete:
Masonry bearing elements and substrates in compliance with local technical standards.
Are not accepted: slope screeds of lightweight concrete.
- **Primer:**

PARATHANE Epoxy Primer: Solvent-free, two-component water-based epoxy primer for coating the surface and ensuring surface adhesion for indoor and outdoor applications. 2 components to be mixed before application (A: epoxy resin and B: amine as hardener). Applied in 1 coat (350g/m²) or 2 coats (2x350g/m²) layers depending on the substrate's porosity. The primer is to be laid with the aid of rollers, rubber spreaders, toothed spreaders, brushes or by airless spray.

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- **Upstands/Parapets**

PARATHANE Epoxy Primer: as mentioned above.

PARATHANE Mastic chamfer: one component polyurethane sealant. Use a flashing element sealant for details, angles and cracks by extrusion with a hand or pneumatic gun.

PARATHANE Coating: as mentioned hereafter

PARATHANE Mat: Polyamide fabric (Nylon jersey) for reinforcement of all details such as angles, cracks and gaps.

PARATHANE Coating: as mentioned hereafter

PARATHANE Finish UV-Clear Coloré: as mentioned below.

- **Waterproofing**

PARATHANE Coating: solvent based one component polyurethane resin. To be applied at 1.5 kg/m², thickness > 1.2mm, in 2 coats minimum (2x750g/m²). 3 colors are available: white, beige and grey.

Coating consumption depends on the local conditions and regulations, please consult the technical department for your specific projects.

Useful Tip: Apply each layer of PARATHANE Coating in 2 different colors in order to easily see the spots that are not covered with the 2nd coat (e.g 1 coat 750 g/m² Parathane Coating White + 1 coat 750 g/m² Parathane Coating Beige).

OPTIONAL: PARATHANE Accelerator (catalyst for polymerisation) is mixed with PARATHANE Coating at least for the first layer coating if weather conditions are as follows:

- dry (HR < 65%) or too humid (HR > 90%)
- low temperatures (< 15°C)
- significant variations in temperature and humidity.

The second layer is applied the same way after the necessary drying time of the first layer

The PARATHANE coating is to be laid according to the desired thickness per coat, with the aid of the following tools: rollers, rubber spreaders, toothed spreaders, brushes or by airless spray.

- **Finish:**

PARATHANE Finish UV-Clear Coloré: UV resistant solvent based one component polyurethane resin to be used as a glossy finish applied in one (150 g/m²) or two coats. PARATHANE Finish UV-Clear Coloré is a coloured finish layer, white and grey colors are available: PARATHANE Finish UV-Clear Grey and PARATHANE Finish UV-Clear White.

- **Walkways / circulation areas:**

Finish surfaces must be adapted according to the traffic. There are 3 options for walkways depending on the traffic. Recommended: choose the contrast color of Parathane Finish UV-Clear Coloré for visible walkways.

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For matte and anti-slippery finish;

PARATHANE CORINDON FINE* : White alpha-alumina powder

PARATHANE Corindon Fine is mixed into **PARATHANE Finish UV-Clear Coloré** to provide a matte and non-skid finish. It is applied at 150 g/m².

**1 bucket of Parathane Corindon Fine (1 kg) works with 1 drum of Parathane Finish UV-Clear Coloré (4 kg).*

For a slightly scintillant and aesthetic finish:

PARATHANE CHIPS: coloured polymer acrylic chips. Grey, beige and Terra colors are available. Apply a new 1 coat (300 g/m²) **Parathane Coating** as an anchorage coat with a short pile roller. Generously sprinkle the **Parathane Chips** (200-300 g/m²) over the wet Parathane Coating layer. After drying, the excess is swept off. Apply the second layer of the **Parathane Finish UV-Clear Coloré** (300 g/m²) to fix the chips.

Special finish for heavy pedestrian traffic and anti-slippery finishing:

PARATHANE SILICA MEDIUM: Dry silica granules, 0.6/1.6 mm.

Apply a new 1 coat (300 g/m²) **Parathane Coating** and generously sprinkle the **Parathane Silica Medium** over the wet Parathane Coating. After drying, the excess is swept off. Apply 2 coating (2x300 g/m²) **Parathane Finish-UV Clear Coloré**.

- **Details:**

PARATHANE STRETCHING: 15cm x 25m roll, flexible composite strip (EPDM/polyester 250-g/m²) for structural expansion joints and cracks.

PARATHANE EPOXY FLASH: Bi-component (B mixed to A), epoxy mastic used for roof crossings and rainwater drainages.

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