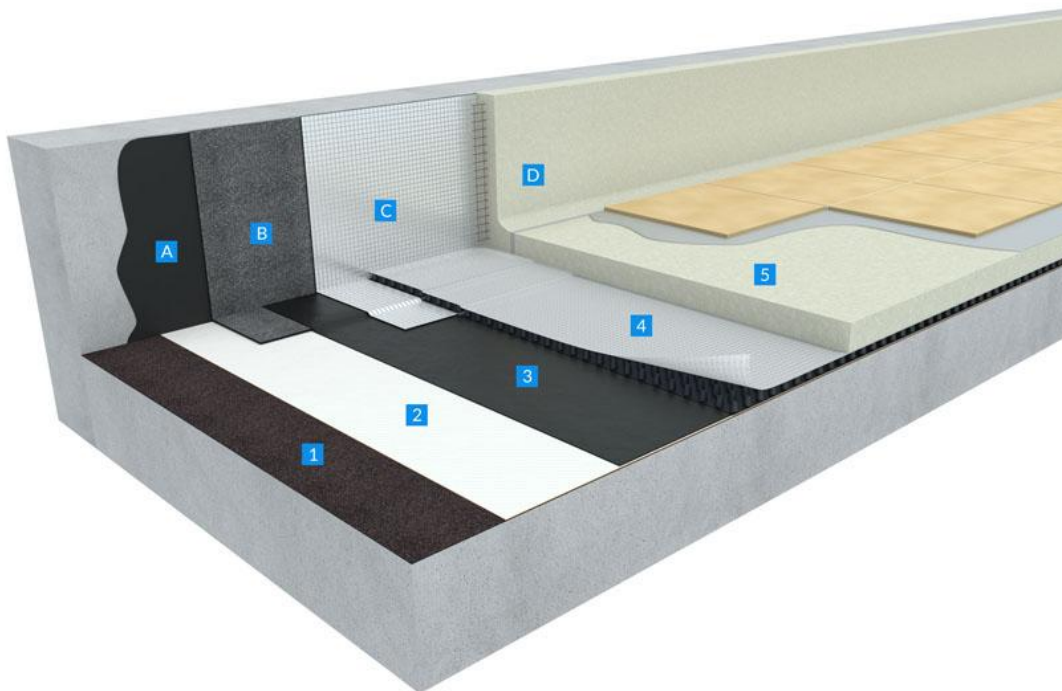


Refurbishment of accessible terraces on screed with paving tiles Loose-laid single layer SBS bitumen waterproofing system: TERANAP JS		
Substrate & Use of roof	Finishing	Standard warm roof / inverted roof
Existing old membrane on concrete substrate Use: Heavy pedestrian traffic rooftops, terraces, podium decks	Paving tiles on screed (heavy protection)	Without new insulation



- **Substrate** : Existing old waterproofing

The load bearing structure (trapezoidal metal sheet, concrete or wooden) 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.

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

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- **Slope:**

Minimum 2% on concrete decks (depending on the type of terrace, please contact the BMI Technical Department).

 - Water ponding areas shall be identified clearly.
- **Levels:**

Tolerances for planarity shall be:

 - 7 mm with a 2 meters straight edge.
 - 2 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.

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

Siplast Primer: cold-applied, quick drying, universal elastomeric bitumen primer. Approx. coverage 0.15 litre/m² on steel and approx. coverage 0.30 litre/m² on concrete (depending on concrete porosity, please consult the supplier's technical documentation).

Paradiene 35 S R4: Polyester-reinforced modified SBS elastomeric bitumen membrane with thermofusible film faced and sanded underside. Used as a base layer membrane for parapets, fully torched.

Paradial S: 3.7 mm thick, glass fibre-reinforced modified SBS elastomeric bitumen cap sheet protected by embossed thermo-stable aluminium foil. It is used as a cap-sheet layer for vertical upstands waterproofing works and in a double-layer system for non-accessible roofs. Thermofusible film on the underside surface, nominal width 70 mm on the longitudinal selvedge. Fully torched on top of the Paradiene 35 S R4.

Protection of upstands/parapets : Wire meshed cement mortar.
- **Separation layer**

Biecran: 70 g/m² kraft paper + 100 g/m² glass fleece, used as a separation layer between old and new waterproofing membrane systems, loose-laid.
- **Waterproofing**

Teranap JS*: 4 mm thick, polyester-reinforced modified SBS elastomeric bitumen membrane with double joints used as a single layer, loosely laid. Along the selvedge, self-adhesive overlap is protected by siliconized release paper. Waterproofing is secured by a covering strip

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(20 cm width “Bande Couvre Joint”) torched onto overlaps. Upper and undersides: film/film.

**For multi-usage terraces with planted areas, Teranap JS is replaced by the “Preflex+Graviflex”, root-resistant double layer bitumen waterproofing system.*

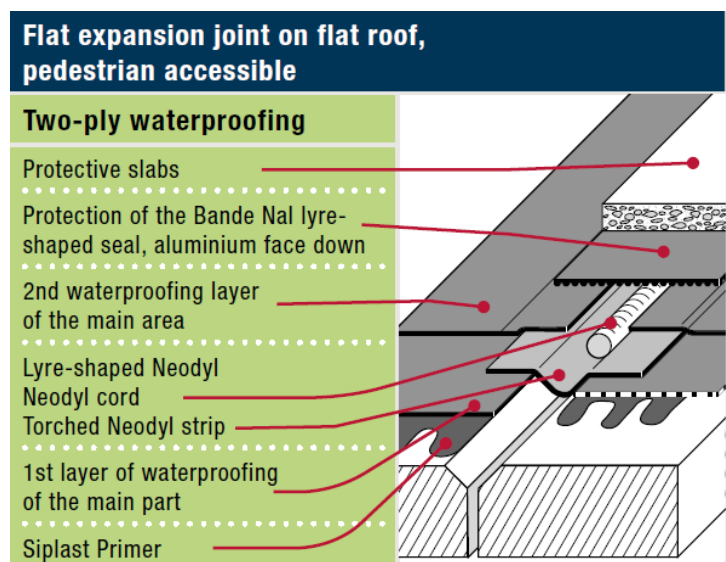
- **Separation & Protection layers**

Draina G10: Composite drainage and separation layer with embossed form made from polypropylene and covered with a permeable non woven polyester filter layer. It is used as a separating layer between the waterproofing and the heavy ballast made of concrete screed, prefabricated slabs of concrete or hard stone.

The use of Draina G10 sheets also allows for impact noise reduction. $\Delta Lw = 15 \text{ dB}$ when used alone, $\Delta Lw = 18 \text{ dB}$ with the bituminous waterproofing system.

Cement screed or concrete slab: complying with local technical standards and scope of application.

- **Expansion joints:** The expansion joints will be prepared in compliance with the **Neodyl System** technical assessment. The Neodyl System comprises **Cordon Neodyl**, **Joint Neodyl (Bande Neodyl)** lyre-shaped waterproofing strips and a protection system (metallic surfaced Paradiat S torched or Supradiat GS; or protective slabs). It will have a kerb, raised flat, flat, with upstands-in certain cases. The Neodyl System is used for structural expansion joints on pedestrian accessible roofs, roof gardens and non-accessible exposed roofs. Suitable for all roof substrates.



- **Details**

All details shall be finalized before roofing works start:

Rainwater drains shall be well located, in sufficient number and ready to receive waterproofing membranes.

Expansion joints shall be located at the highest roof points, on reinforced concrete curbs chamfered as shown on drawings.

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All pipes, cables and other penetrations shall be in place. Provision for proper waterproofing of roof equipment and machinery shall be made.

All parapets shall be in place, with provision for groove or counter flashing at an acceptable height (150 mm above finished roof level).

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