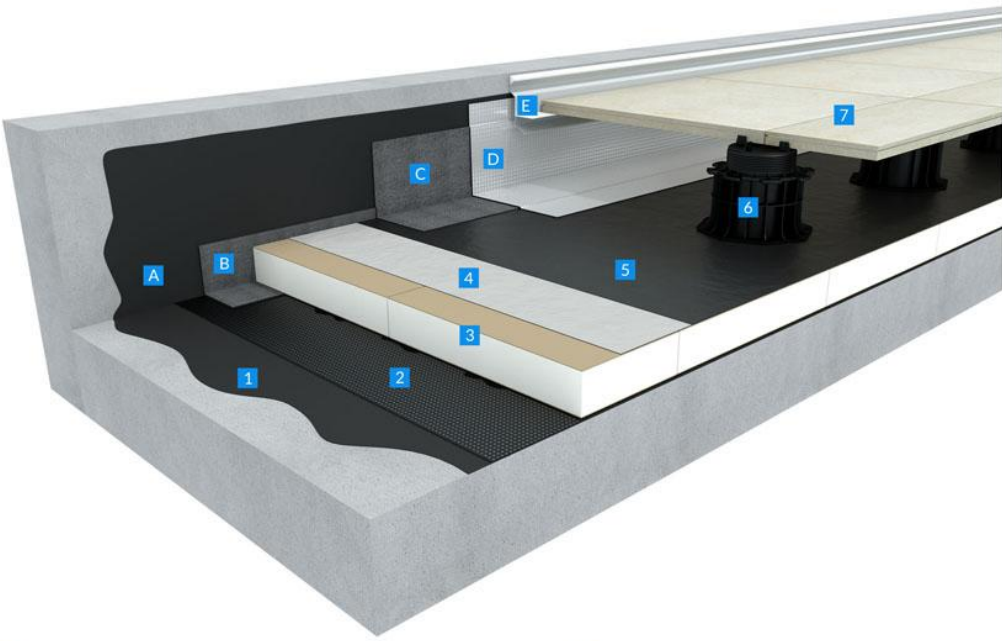
Pedestrian accessible terraces with tiles on adjustable pedestals
Single layer SBS bitumen waterproofing system:
TERANAP JS

Substrate & Use of roof	Finishing	Standard warm roof / inverted roof
Concrete Accessible terraces such as: Rooftops, loggias of hospitals, canteens and offices, balconies, podium roofs, exhibitions, cafes, restaurants, private use and public use spaces.	Tiles on adjustable pedestals	Insulation under waterproofing



- **Substrate**
  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:

- **Slope:**
  1-5 % on the concrete decks (depending on type of terrace, please contact BMI Technical Department).

  - Water pounding areas shall be identified clearly.
- **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.

  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).
  Parequerre: Nonwoven polyester-reinforced modified SBS elastomeric bitumen angle strip. Cut in 0.25 m or 0.33 m wide strip for use as a reinforcement angle on upstands. Torched at the junction of the parapet with the main area.
  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.

- **Vapor Control layer**
  Siplast Primer: cold-applied, quick drying, universal elastomeric bitumen primer. Approx. coverage 0.30 litre/m² on concrete (depending on concrete porosity, please consult the supplier's technical documentation).
  Irex Profil: Glass fibre-reinforced modified SBS elastomeric bitumen vapour control layer, fully torched.

- **Thermal Insulation**
  Thermal insulation panels with minimum **Class C** compressibility: Polyisocyanurate boards (PIR) / polyurethane rigid foam (PUR) with composite reinforced facing, composite fibrous perlite boards, expanded polystyrene boards (EPS) glued with **PUR Glue.** Bitumen-faced cellular glass insulation boards (without a vapor control layer) laid in hot bitumen.

  In case of use of EPS boards, apply **ADEALU** which is modified self-adhesive bitumen tape surfaced with a composite aluminium-polyester (Grey or coloured) foil, at the junction of first layer of waterproofing and the parapet before torching the reinforcement angle (Parequerre). ADEALU is used as a flame barrier for EPS insulation.

  Pedestrian traffic and technical zones circulation: the compressibility class of thermal insulation panels should be taken into consideration according to the use / destination of the roof and building. It must support high compressive loads without deflection or movement.
  Consult the supplier's technical documentation and local regulations.

- **Separation layer**
  Verecran 100*: 100 g/m² glass fiber mat as a separation layer between insulation and waterproofing membrane, loosely laid.
  **On expanded polystyrene insulation (EPS) boards: replace Verecran 100 by Biecran.*
  Biecran: 70 g/m² kraft paper + 100 g/m² glass fleece as a separation layer, loosely-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 (20 cm width "Bande Couvre Joint") torched onto overlaps. Top and bottom faces: film/film.
  **For multi-usage terraces with planted areas, Teranap JS is replaced by the "Preflex+Graviflex", root-resistant double layer bitumen waterproofing system.*

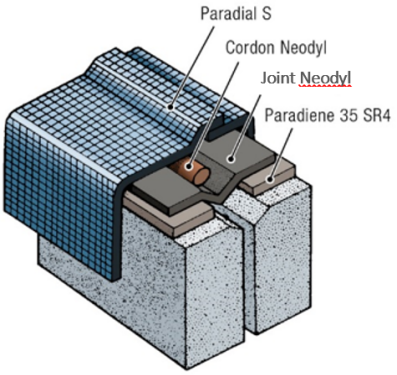
- **Protection**
  Plot Zoom 2: screw-adjustable polypropylene pedestals for paving or wooden tiles on pedestrian areas. Fully adjustable by the means of a threaded upper supporting head overcoming the differences of height and falls on the roof deck. Range of 3 varying bases and additional extension collars.
  Plot Zoom 2 heights: 40-60 mm, 60-100 mm**,** 100-140 mm.

  Accessories: Plot Zoom 2 Extension height 40 mm, Placadal PZ2 Dimensions : 400 x 140 x 29 mm, Plot Zoom 2 Adjustment key width 5 mm, Joist support plate, grating grid and support, flashing system for tiles support.
  Please consult the catalogue for Plot Zoom 2 and its accessories.

Walkable wooden or slab tiles on top of Plot Zoom 2:
Dalle Ipe 50 or similar wooden tiles: Ipe wood tile with grooves or any similar type of wooden tiles.
Dalle EssenSia UNI or similar paving tiles: Ceramic stoneware tiles for accessible terraces. High resistance against weather conditions and chemical attacks. Easy to install on Plot Zoom 2 pedestal systems. Slightly textured for an anti-skid surface and 3 colors available.

Consult the supplier's technical documentation and local regulations.

- **Expansion joints:** Expansion joints have especially to be planned by the architects and are project specific.
  Recommendation: The expansion joints will be prepared in compliance with the **Neodyl System** technical assessment. The Neodyl System comprises **Cordon Neodyl**, **Joint Neodyl (Bande Neodyl)** lyred-shaped waterproofing strip and a protection system (metallic surfaced Paradial S torched or Supradial GS; or protective slabs). It will have a kerb, raised flat, flat, with upstands-in certain cases.



  Neodyl System is used for structural expansion joints on pedestrian accessible roofs, roof gardens and non-accessible exposed roofs. Suitable for all roof substrates.

  Application:

  - ➔ Apply **Siplast Primer** on each joint side
  - ➔ 3.5 mm thick, polyester reinforced **PARADIENE 35 S R4** modified SBS elastomeric bitumen membrane, torched on top of the Siplast Primer
  - ➔ Unreinforced lyre-shaped strip **Joint NEODYL** fully torched on Paradiene 35 S R4 membranes to the edge of the chamfer
  - ➔ Place **Cordon NEODYL** (⌀ 30 mm) in the lyre of Joint Neodyl strip
  - ➔ Protection: with a top layer of **PARADIAL S**, 3.7 mm thick modified SBS elastomeric bitumen membrane with glass fibre reinforcement, self-protected by thermo-compensated aluminum foil, fully torched. OR alternatively, Supradial GS membrane can be torched. Protection can also be done by paving tiles, depending on expansion joints and project requirements.

- **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.

  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).