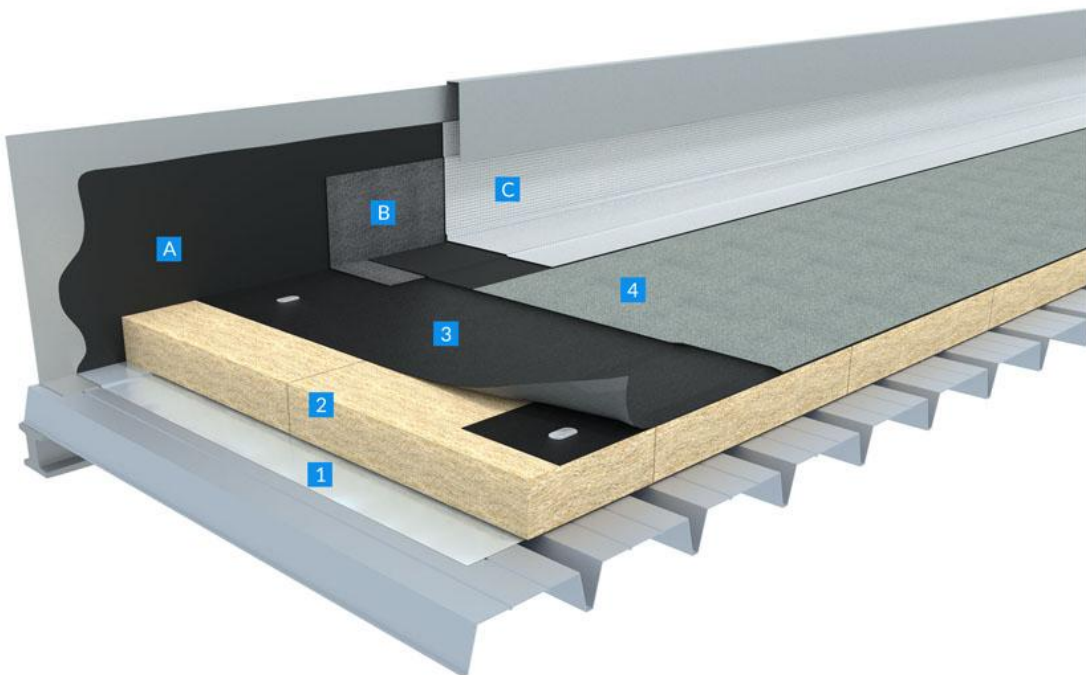


**Non-accessible exposed roofs with coloured mineral surface on steel deck**  
**Mechanical fixing + torched double layer bitumen waterproofing system:**  
**PARADIENE FM + PARADIENE 40.1 GS – NOx-Activ® air depolluting solution**

Substrate & Use of roof	Finishing	Standard warm roof / inverted roof
Steel deck Non-accessible exposed roofs	Mineral granule	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.

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- **Slope:**  
Exposed roofs: Minimum slope requirement is 3% on steel deck.  
- Water ponding areas shall be identified clearly.
- **Surface:**  
Bearing elements of a profiled steel deck in compliance with local technical standards.
- **Upstands/Parapets:**  
**Siplast Primer:** cold-applied, quick drying, universal elastomeric bitumen primer. Approx. coverage 0.15 litre/m<sup>2</sup> on steel (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 strips for use as a reinforcement angle on upstands. Torched at the junction of the parapet with the main area.  
**Paradial S:** 3.7 mm nominal thickness, 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.  
OR alternatively, **Supradial GS:** 3.5 mm thick on the longitudinal selvedge (without mineral finish), modified SBS elastomeric bitumen cap sheet with composite reinforcement, protected by embossed aluminium foil with coloured mineral finished upper surface, thermofusible film on the underside. Fully torched.
- **Vapor Control layer**  
Low or medium hygrometric level buildings: no VCL on regular metal sheets, **Ceceal** on perforated metal sheets  
High hygrometric level buildings: **Ceceal** or **Adevapo** on regular steel sheets  
  
**Ceceal:** Ceceal is a glass mat bonded on an aluminium foil used as a vapour barrier on a steel deck roof. Aluminium face at the above is mandatory on regular metal sheets. The overlaps are 10 cm and are covered by self-adhesive strips.  
**Adevapo:** Self-adhesive vapour barrier with highly tear resistant and composite surfacing of aluminium foil + strong HDPE film, for use on corrugated metal roof decking in case of high hygrometric level in the buildings such as swimming pools, industrial buildings etc.
- **Insulation**  
Mineral wool, fibrous composite perlite boards, polyisocyanurate board (PIR) with fibre reinforced facing, resol foam board and composite perlite+resol boards fixed mechanically.

Consult the supplier's technical documentation and local regulations for compliance with all building and security requirements.

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- **Waterproofing**

**Paradiene FM:** polyester reinforced, 2.6 mm nominal thickness, modified SBS elastomeric bitumen underlayer for mechanical fixing. Thermofusible film upper surface, sanded on the underside. Linear mechanical fixing at the 10 cm wide overlap. Then the lapped joints are fully torched.

**Paradiene 40.1 GS:** glass fibre-reinforced, modified SBS elastomeric bitumen cap sheet with self-protected coloured mineral granules or slate flakes, thermofusible film on the underside. Bitumen of the underside surface is grooved (patented Profil System). Thickness on the longitudinal selvedge: 3.0 mm. Fully torched on top of the first underlayer membrane.

Air depolluting the **NOx-Activ®** version with White Noxite is also available.

- **Walkways\*:**

For walkways and technical circulation areas;

**PARATECH:** surfaced with coloured ceramic granules or slate flakes (Anthracite or Brown colors), polyester reinforced, modified SBS bitumen walkway membrane is fully torched on top of the cap sheet or glued with **COLLE PAR**,

OR alternative walkway membrane;

**Parafor 30 GS:** polyester reinforced, modified SBS elastomeric membrane with mineral granule or slate-finished upper surface and a thermofusible film under surface. Fully torched on top of the cap sheet.

*\*Useful tip: For visible walkways, choose a different and contrast color membrane than the roofing cap sheet.*

- **Details**

All details shall be finalized before roofing works start:

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

Expansion joints have especially to be planned by the architects and are project specific. Contact the BMI Technical Department for guidance and advice.

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).

The density of the fasteners depends on the wind load (please contact the BMI Technical Department for wind-uplift calculation and approved mechanical fixing fasteners).

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