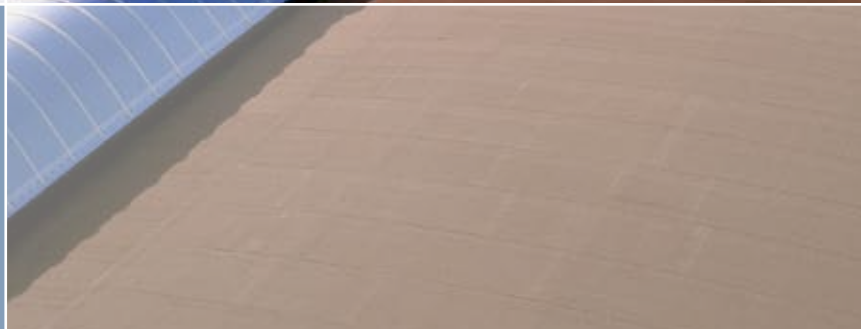
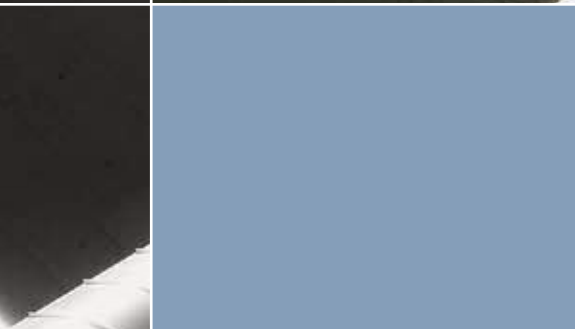


Steeldeck

Self-protected waterproofing

Main area and upstand descriptions



Self-protected waterproofing systems for non-accessible roofs on steeldeck

Steeldeck

Self-protected waterproofing

Contents

Selected system descriptions	3
Upstands	6
Siplast product descriptions	7

Attention : the information herein is a general guideline, but does not take into account restrictions or special instructions related to the bearing element, to certain insulations, to the geographical location, to the structural configuration, etc.

This information does not relieve the professionals from obtaining full knowledge of the reference documents (prevailing Local Technical Standards, Technical Assessments, Installation Specifications, etc.) This entails consulting them in their integral textual form.

Again this document is only a guide; Siplast-Icopal reserves the right to modify the composition and the installation instructions of its products, depending upon the evolution of knowledge and technology.

Steeldeck

Self-protected waterproofing



1.1

Steeldeck

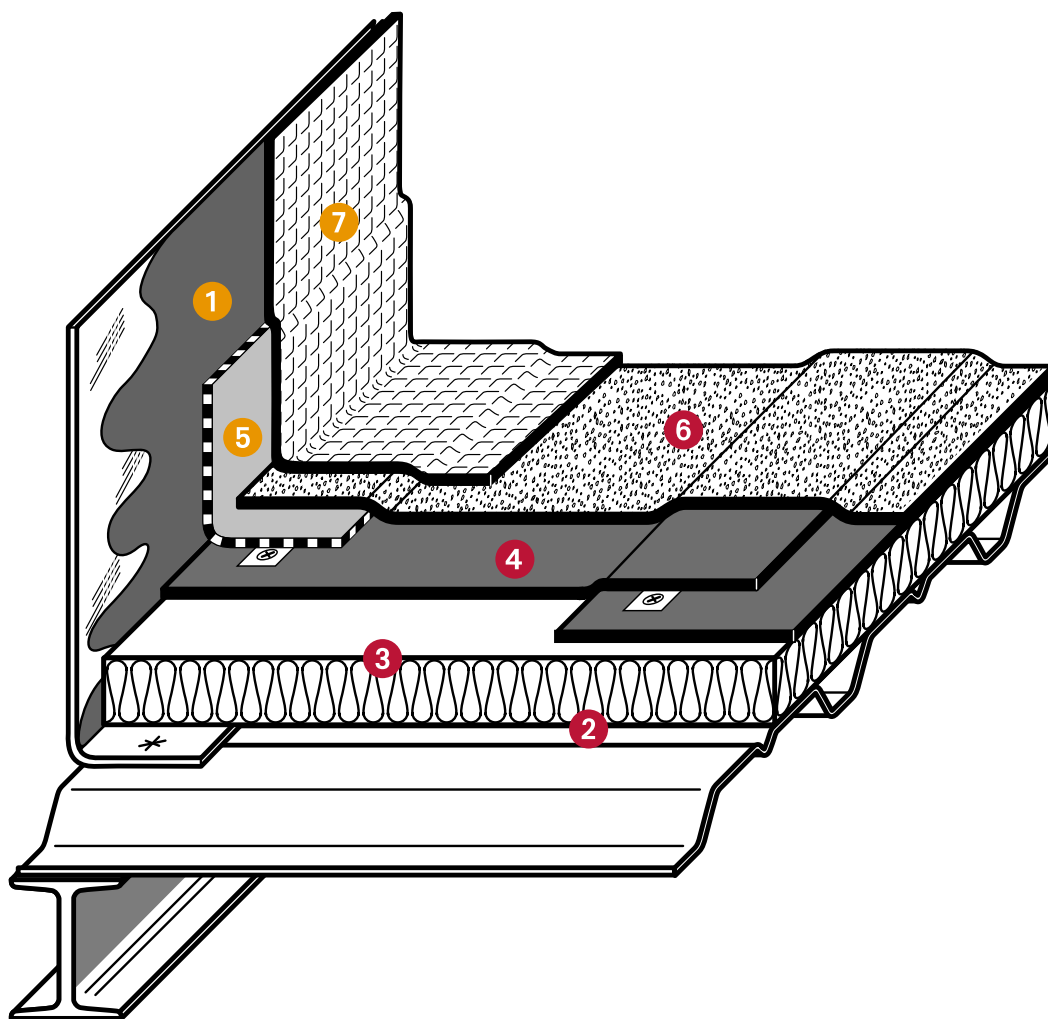
Non-accessible roof with granule surface finishing

On flame sensitive insulation board

Mechanically-fixed SBS elastomeric bitumen **double-layer** waterproofing system

Slope
≥ 3%

Parastyrene FM JS + Paradiene 30.1 GS



1 Upstands: **Siplast Primer** SBS bitumen primer.

2 Vapour control layer (no VCL on regular steeldeck)
Ceceal or **Adevapo** on perforated steeldeck.

3 Insulation: expanded polystyrene boards,
polyisocyanurate boards with fibre reinforced facing.*
(fire resistant board as regards public buildings)

4 Mechanically-fixed **Parastyrene FM JS** underlayer +
torch overlaps.

5 Upstands: torched **Parequerre** reinforcement angle.

6 Torch granule-surfaced **Paradiene 30.1 GS**
cap sheet.

7 Upstands: torched **Paradiene S** or **Parafor Solo GS**
top-layer.

* Consult the supplier's technical documentation and local regulations for compliance with all building and security requirements. The insulation boards are held by 1 or 2 mechanical fixations. See supplier's installation manual.

Steeldeck

Self-protected waterproofing

1.2 Steeldeck

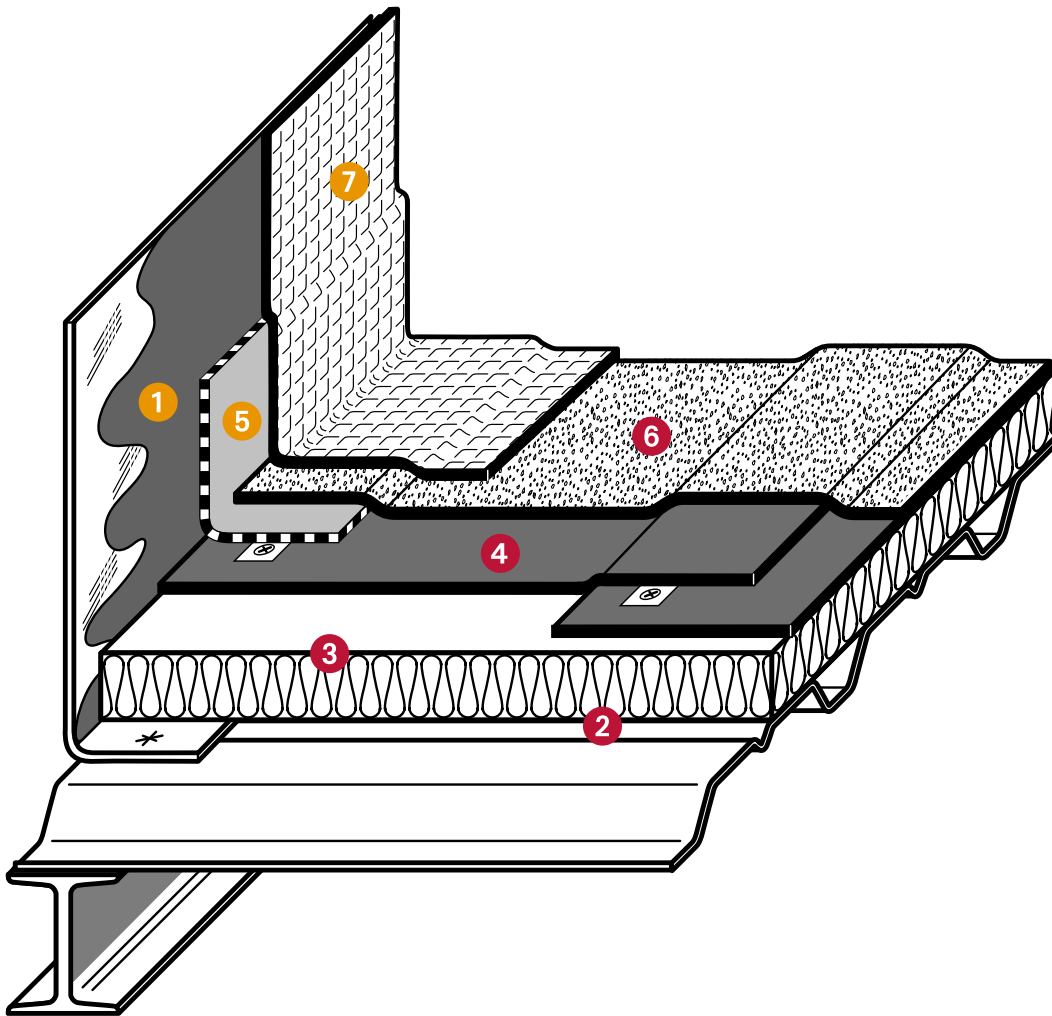
Non-accessible roof with granule surface finishing

On insulation board

Mechanically-fixed SBS elastomeric bitumen **double-layer** waterproofing system

Slope
≥ 3%

Paradiene FM + Paradiene 30.1 GS



1 Upstands: **Siplast Primer** SBS bitumen primer.

2 Vapour control layer (no VCL on regular steeldeck, **Ceceal** or **Adevapo** on perforated steeldeck).

3 Insulation: mineral wool board without bitumen coating, expanded perlite + fiber board, resol foam board, composite perlite + resol board, polyisocyanurate board with fibre reinforced facing.*

4 Mechanically-fixed **Paradiene FM** underlayer + torched overlaps.

5 Upstands: torched **Parequerre** reinforcement angle.

6 Torched granule-surfaced **Paradiene 30.1 GS** cap sheet.

7 Upstands: torched **Paradial S** or **Parafor Solo GS** top-layer.

* Consult the supplier's technical documentation and local regulations for compliance with all building and security requirements. The insulation boards are held by 1 or 2 mechanical fixations. See supplier's installation manual.

Steeldeck

Self-protected waterproofing

1.3

Steeldeck

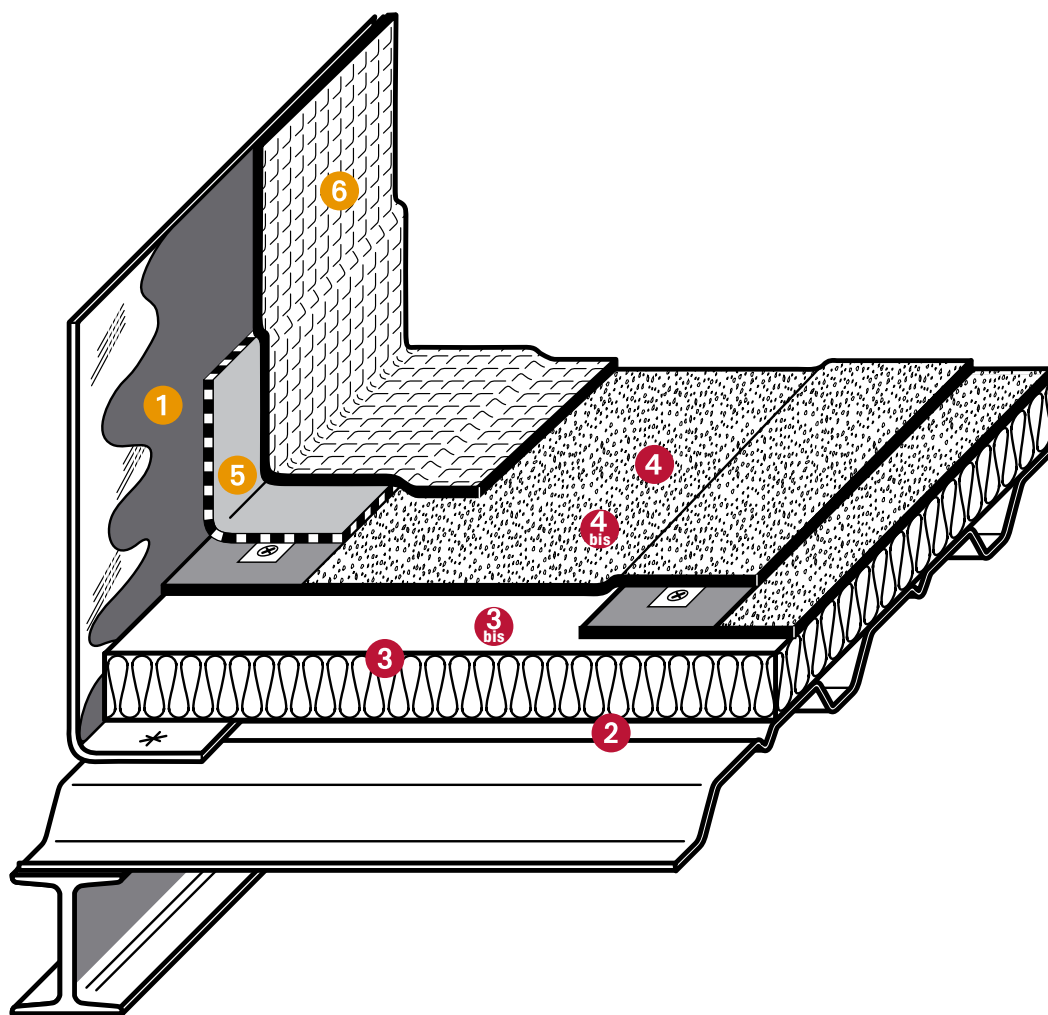
Non-accessible roof with granule surface finishing

On insulation board

Mechanically-fixed SBS elastomeric bitumen **single-layer** waterproofing system

Parafor Solo GFM or Paraflor Solo GFX JS on flame sensitive insulation board

Slope
≥ 3%



- 1 Upstands: **Siplast Primer** SBS bitumen primer.
- 2 Vapour control layer (no VCL on regular steeldeck, **Ceceal** or **Adevapo** on perforated steeldeck).
- 3 Insulation: mineral wool board without bitumen coating, expanded perlite + fiber board, resol foam board, composite perlite + resol board, polyisocyanurate board with fibre reinforced facing.* (fire resistant board as regards public buildings)
3 bis: Insulation: expanded polystyrene board

- 4 Mechanically-fixed **Parafor Solo GFM** single-layer + torched overlaps.
4 bis: Mechanically **Parafor Solo GFX JS** single-layer + torched overlaps
- 5 Upstands: torched **Parequerre** reinforcement angle.
- 6 Upstands: torched **Paradial S** or **Parafor Solo GS** top-layer.

* Consult the supplier's technical documentation and local regulations for compliance with all building and security requirements. The insulation boards are held by 1 or 2 mechanical fixations. See supplier's installation manual.

Steeldeck

Self-protected waterproofing

Upstands

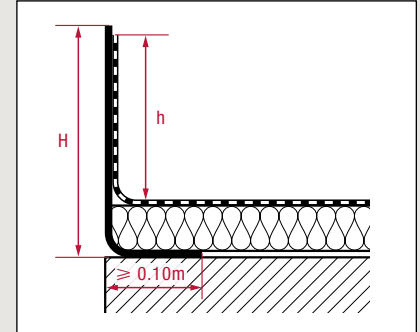
Technical specifications as described hereafter are suitable only for job-sites in plains climate

Upstand flashings

Their heights H shall enable the upstand flashings to extend upward to a minimal distance of 0.15m above the main area's self-protected waterproofing (0.25m minimal distance in the special cases of eave valleys on inclined roof surfaces with > 20 %).

The kerbs are of steel sheet, either galvanized or with anti-corrosion treatment, the thickness (refer to the local technical standards) of which depends on:

- ▶ the height H of the kerbs;
- ▶ the possible presence of a back cladding, supported by the kerb;
- ▶ the type of kerb: self-supporting or not, incorporated in the bearing or incremental structure, roof-light kerb, etc.



Description of the upstand flashing

Preparation of the kerb

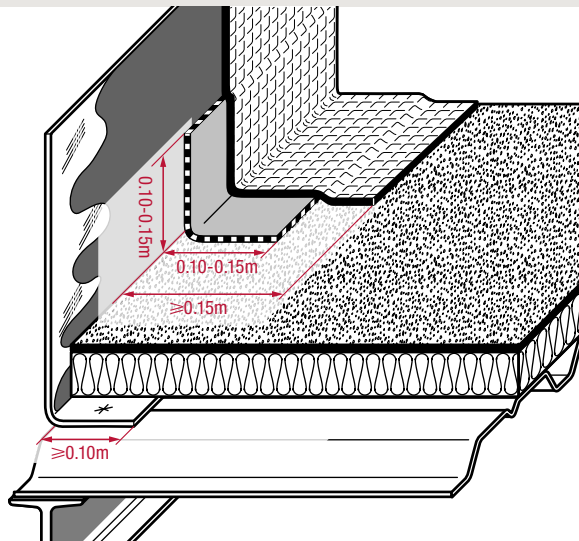
Upstand not thermally insulated

Siplast Primer

Upstand thermally insulated

Allowable insulation boards complying with their Technical Assessments:

- ▶ torchable bitumen-coated mineral wool or perlite + fibre boards bonded with hot bitumen or mechanically fixed.
- ▶ cellular glass, bitumen surfaced, fully bonded with hot bitumen



Waterproofing

Torched capsheet:

Paradial S (protected with aluminium) ou Supradial GS (protected with aluminium + granules)

Possible alternatives: Vercuire S, Verinox S, Parafor Solo GS, Parafor Solo FE GS

Torched reinforcement angle: Parequerre

Note: in case of non-bearing thermal insulation boards, height > 0,30m, the waterproofing system is fixed at the top to the kerb, with 4 fixings per meter, and this should be protected against run-off water.

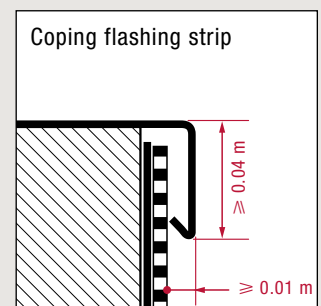
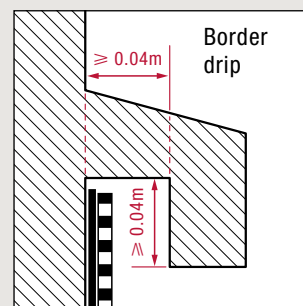
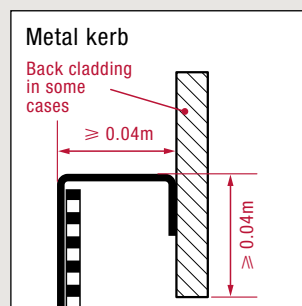
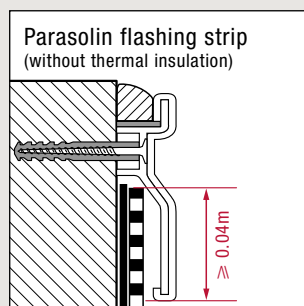
Methods for the tops of upstands

In their upper parts, the upstands need to include a watertight structure, to

prevent run-off water from penetrating in back of the upstand flashing.

The above drawings show a number of possibilities, shown without thermal

insulation. The width of the projection of the above-mentioned watertight structure will take into account the thickness of any thermal insulation board.



Specifications

- The kerbs are of steel sheet, either galvanized or with anti-corrosion treatment with a thickness of ...mm and height of ...mm, coated with Siplast Primer.

For upstand thermally insulated:

- ▶ insulating board complying with their Technical Assessments N°... and fixed by ...,
- ▶ thickness of ...mm with a thermal resistance performance of: ...
- The waterproofing upstand is made of:
 - ▶ a reinforcement angle: torched Parequerre
 - ▶ a torched granule or aluminium protected capsheet: (colour ...) Paradiel S ou Supradial GS (overprotected with aluminium + granules), the overlaps at the upstand foot with the main area being minimum 0.15m.
- The top of the the upstand will be protected by ...

Siplast product descriptions

Adesolo G: self-adhesive, partially-bonded, glass/polyester composite-reinforced, SBS-modified elastomeric bitumen waterproofing, with slate flake or coloured granule surface finish, colour, and nominal 120mm wide selvedge. Underside sanded between self-adhesive strips and protected with siliconised peel-off film.

Adevapo: self-adhesive vapour barrier with highly tear resistant, aluminium + HDPE laminated reinforcement*.

Bande Adealu: Self-adhesive elastomeric bitumen strip surfaced with natural or coloured aluminium foil.

Colle Par: bituminous cold adhesive.

Dalle Parcours: semi-rigid, double glass-reinforced bitumen walkway tiles with Brown or Slate Grey granule surface finish.

Paradiene S VV: glass-reinforced, torch-applied SBS-modified elastomeric bitumen underlayer, fusible film on the upper surface, sanded or film-faced on the underside

Paradiel: aluminium-faced, composite-reinforced elastomeric bitumen cap sheet, fusible film on the underside.

Paradiene S R3: glass/polyester composite-reinforced, torch-applied SBS-modified elastomeric bitumen underlayer, film-faced with perforated thermofusible film on the underside.

Paradiene 40.1 GS: glass fibre-based SBS-modified elastomeric bitumen cap sheet, granule-surfaced, colour, thermofusible film on underside.

Paradiene FM: glass/polyester composite-reinforced, SBS-modified elastomeric bitumen underlayer for mechanical fixing, film-faced, sanded on the underside.

Parafor 30 GS: polyester-reinforced SBS-modified elastomeric bitumen cap sheet, granule-surfaced, colour, perforated thermofusible film on the underside,

Parafor Solo GS: polyester-reinforced SBS-modified elastomeric bitumen cap sheet, granule surfaced, colour, with continuous thermofusible film on grooved underside, selvedge with scarified film.

Parafor Solo FE GS: composite-reinforced SBS-modified elastomeric bitumen cap sheet, granule surfaced, colour, with continuous thermofusible film on grooved underside, selvedge with scarified film, complying with the French T 30-1 fire-resistant standard.

Parafor Solo G FM: polyester-reinforced, mechanically-fixed, single layer, SBS-modified, elastomeric bitumen waterproofing, granule-surfaced, colour, sanded with film-faced selvedge on the underside, selvedge with scarified film and graduations.

Parafor Solo G FX: glass/polyester composite-reinforced, mechanically-fixed, single layer, SBS-modified, elastomeric bitumen waterproofing, granule-surfaced, colour, sanded with film-faced selvedge on the underside, selvedge with scarified film.

Complementary information

- Product leaflets: Parafor Solo GS, Parafor Solo FE GS, Metal-faced Range (Paradiel S, Supradial GS, Vercuivre S, Verinox S), Parequerre, Siplast Primer.

Parafor Solo GFX JS: polyester reinforced, SBS-modified elastomeric bitumen cap-sheet, granule-surfaced, colour..., sanded on the underside. Side overlapping with self-adhesive joint to protect the insulation from torch-flame.

Parastyrene FM JS: glass/polyester composite-reinforced, SBS-modified elastomeric bitumen underlayer for mechanical fixing along the side laps, film-faced, sanded on the underside. Side overlapping with self-adhesive joint to protect the insulation from torch-flame.

Parequerre: polyester composite-reinforced, torch-applied SBS-modified elastomeric bitumen underlayer. Cut in 0,25 m wide strip for use as reinforcement angle on upstands.

SCR Alliance: polyester-reinforced, SBS-modified elastomeric bitumen underlay fixed mechanically for re-roofing work, film-surfaced with polyester underside

Siplast Primer: cold-applied, quick drying, universal solvent based elastomeric bitumen primer.

Supradial GS: aluminium-faced with granule finishing, composite-reinforced elastomeric bitumen cap sheet, fusible film on the underside.

Vercuivre S: copper-faced, composite-reinforced elastomeric bitumen cap sheet, fusible film on the underside, nominal.

Verinox S: stainless steel-faced, composite-reinforced elastomeric bitumen cap sheet, fusible film on the underside

* for high hygrometric rate buildings.

