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**Type LR Underlay** to EN 13859-1: **Tyvek® Supro Plus** as supplied by DuPont Performance Building Solutions, Bristol & Bath Science Park, Dirac Crescent, Emersons Green, Bristol. BS16 7FR.

### Storage

Rolls of Tyvek® Supro Plus should be stored palletised or on their sides on a smooth clean surface, under cover and protected from direct sunlight.

### General

Care should be taken when handling the membrane to prevent tears and punctures occurring. Any that do occur should be repaired with Tyvek® Acrylic Tape (2060B).

### Eaves:

Lay an appropriate UV resistant eaves sheet over the fascia board/rafter ends, extend into the gutter and fix into place with felt nails. Lay Tyvek® Supro Plus parallel to the eaves overlapping the eaves sheet and taking the membrane to the outside edge of the fascia board or rafter ends. Bond the membrane to the eaves sheet with Tyvek® Double-sided Tape to form a weather-tight seal.

### Fixing

Tyvek® Supro Plus should be fixed with stainless-steel staples or preferably large headed felt nails which will self-seal the penetration. Fixings should be positioned at maximum 300mm horizontal centres and maximum 600mm vertical centres.

### Sealing tape

Tyvek® Supro Plus is manufactured with an integral adhesive strip to allow the membrane to be sealed for air-tightness. The membrane has been tested for 'Resistance to penetration of air' in accordance with EN 12114 and achieved <math>0.25 \text{ m}^3/\text{h} \cdot \text{m}^2</math> at 50 Pa. With all laps and penetrations sealed, Tyvek® Supro Plus will contribute to the overall airtightness of the building. If preferred, fixing penetrations can be sealed by applying Tyvek® Butyl Tape to the substrate before the membrane is installed.

### Laps

Maintain 150mm horizontal laps between each sheet and seal with the integral adhesive tape. Any vertical laps should be minimum 300mm and positioned over rafters. For airtightness, these may be sealed with Tyvek® Acrylic Tape (2060B).

### Unsupported underlay

Tyvek® Supro Plus should be laid horizontally across the roof slope, with a nominal drape of 10mm. Horizontal laps should be sealed with the integral adhesive tape to comply with standards on wind uplift. Users should check the specific zonal wind uplift restrictions applicable to the site location, as well as the height and exposure parameters in accordance with the current version of BS5534 Annex A.

### Supported underlay

Tyvek® Supro Plus should be pulled over the support and secured with appropriately sized counter battens. Stainless-steel staples or large headed felt nails may be used to temporarily secure the membrane, which ideally would be later covered by the counter battens.

### Ply/OSB sheathing: Ventilated

**These vapour resistant board materials do not allow adequate vapour diffusion and therefore should not be installed in non-ventilated applications above insulation.** Ventilation at eaves and ridge and a continuous 50mm cross ventilation path must be maintained beneath the sheathing in accordance with the current version of BS5250.

Tyvek® Supro Plus may be installed over plywood or OSB sheathing, where the insulation is to be installed above, ie. warm roofs.

Continued.

### Scottish Sarking: Non-ventilated

To maintain vapour permeability, timber boarding should be 150mm wide with 2mm gaps as per BBA certificate 08/4548 or NSAI certificate 04/0157. Tyvek® Supro Plus should be laid directly over the timber sarking and secured with large headed felt nails (staples should not be used). The membrane should be laid horizontally with laps sealed as per the unsupported criteria above to comply with standards on wind uplift. Slates are fixed directly through into the boarding.

### Ridge: Non-ventilated

Tyvek® Supro Plus should extend over the ridge and lap at least 150mm down each side so that a 300mm wide double layer is formed over the centre-line.

### Ridge: Ventilated (for NHBC requirements)

Install Tyvek® Supro Plus continuously over the ridge to provide protection during construction. Immediately prior to fitting the ridge tiles, cut the membrane away along the ridge line to maintain the ventilation path.

### Hip

The Tyvek® Supro Plus underlay should be taken up to the hip from one side and folded back to form a drainage welt. The underlay from the opposing roof slope should extend across the hip and over the first underlay to form a triple layer of membrane over the hip rafter. Once the membrane is fixed into place it may be trimmed back, but a minimum lap of 300mm should be maintained.

### Valley (for tiles, lead, GRP, etc.)

This process should result in three layers of membrane being installed, providing protection to the valley.

1. Lay a strip of Tyvek® Supro (minimum 600mm wide) vertically down the centre line of the valley.
2. Dress Tyvek® Supro Plus from one roof pitch and extend across the valley to the opposing roof slope, covering entirely the first Tyvek® strip.
3. Repeat with the underlay from the remaining roof pitch, extending to the opposing roof slope.

For each stage, fix the Tyvek® Supro Plus underlay into place with large headed felt nails. During the process, care should be taken to ensure the membrane is formed to the valley shape as much as possible. This is to avoid penetrating the membrane with the valley lining or battens when later installed directly over.

### Chimneys & roof windows

Tyvek® Supro Plus should be formed around chimneys & roof windows, turning the underlay up against the detail and terminating behind flashings (if present) to eliminate water ingress. Where appropriate, seal the underlay against the detail with Tyvek® Acrylic Tape (2060B).

### Penetrations

Window corners, soil vent pipes and cable penetrations can be effectively sealed with Tyvek® Acrylic Tape (2060B) or Tyvek® FlexWrap.

### Compatibility

Where timber treatments are used care should be taken to ensure they are touch-dry before the installation of the Tyvek® Supro Plus underlay. Retrospective spray applied micro emulsions can also pose significant risk to polymer-based materials such as Tyvek®. Masking the membrane against preservative treatments should be considered.

### Temporary exposure period

Tyvek® Supro Plus may be left exposed for a period not exceeding **4 months**, provided that the membrane is adequately secured in accordance with our recommendations. Site conditions and exposure to wind should be assessed to determine whether extra security measures for the membrane are required.

### Fire regulations

Tyvek® Supro Plus has Fire Classification E in accordance with EN 13501-1. Care should be taken to determine suitability of this membrane for the intended application, with specific regard to building height and proximity to boundary. Users/specifiers should refer to their regional regulatory guidance documents in case there are any requirements or variations that may restrict the use of this product.

Video installation link:

<https://www.dupont.co.uk/resource-center.html?BU=pbs&restyle=video>