

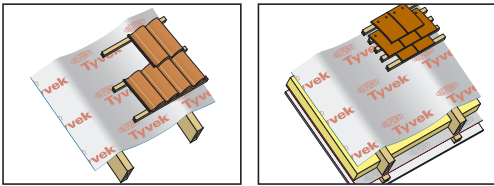
DuPont™ **Tyvek®** INSTALLATION GUIDELINES

DuPont™ Climate Systems: Tyvek® Enercor® Roof and DuPont™ AirGuard®

Key Benefits

- ✓ Boost insulation performance by up to 20%, with up to 15% savings in home energy costs
- ✓ Blocks 85% of radiant heat in the summer keeping the building cool inside
- ✓ Helps to achieve Part L airtightness requirements

General instructions



• Applications

Tyvek® Enercor® Roof is installed beneath tiles or slates as the roof underlay with the reflective side facing downwards into a non-ventilated airspace.

Tyvek® Enercor® Roof is suitable for use in systems with insulation installed at rafter level (warm roof) or joist level (cold roof) but is not suitable for use in supported applications.

• Airspace

The airspace beneath **Tyvek® Enercor® Roof** is fundamental to benefit from the product's low emissive performance. A non-ventilated cold roof void with insulation at joist level will provide a sufficient airspace for this purpose. In the case of sloping ceilings, where the insulation is installed at rafter level, the optimum airspace is 25 mm.

• Fixings

Tyvek® Enercor® Roof should be fixed with stainless steel staples or corrosion resistant nails:

- Horizontal fixing 600 mm centres
- Vertical fixing 300 mm centres

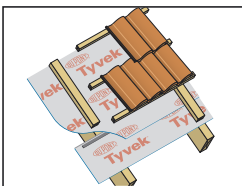
• Eaves carrier

Prior to the installation of **Tyvek® Enercor® Roof**, fix **Tyvek® Eaves Carrier** (or similar UV resistant material) over the fascia board/rafters and dress into the gutter. Secure **Tyvek® Eaves Carrier** with galvanized clout nails.

Install the first run of **Tyvek® Enercor® Roof** parallel to the eaves so that the leading edge laps onto the eaves carrier by a minimum of 150 mm. Install **Tyvek® Enercor® Roof** over rafters or counter battens with the reflective side facing downwards. The membrane shall be pulled taut to create a minimal drape.

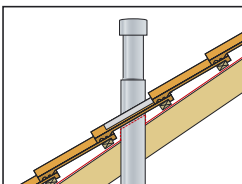
A clear airspace of nominal 25 mm must be maintained beneath the membrane for thermal efficiency.

Laps & Tape



• Laps

The upper run of **Tyvek® Enercor® Roof** must overlap the lower to prevent water from running behind the membrane. All horizontal laps should be at least 150 mm and vertical laps 300 mm.



• Tape

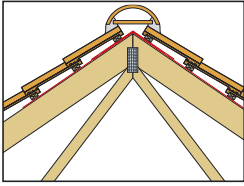
The airtightness of **Tyvek® Enercor® Roof** can be greatly improved by sealing all laps and penetrations with adhesive tape:

Tyvek® Metallised Tape (single sided) or **Tyvek® Butyl Tape** (double sided).

Penetrations, perimeters and abutments should also be sealed to ensure an effective vapour control layer and air leakage barrier.



Specific installation



- **Ridges**

Form a 300 mm wide double strip of **Tyvek® Enercor® Roof** over the centre line of the ridge.

- **Verges**

Terminate **Tyvek® Enercor® Roof** at the external face of the wall and secure with a timber batten or dress into mortar. If a fascia board is specified turn the membrane up against the board 50 mm.

- **Hips**

Tyvek® Enercor® Roof should lap at least 300 mm down each side of the hip so that a 600 mm wide double layer is formed over the centre-line of the hip.

- **Valleys**

Form a double layer of **Tyvek® Enercor® Roof** beneath valley tiles or lay a separate strip of membrane directly onto a support board beneath lead/GRP. Terminate the main roofing layer of **Tyvek®** over the valley fillet/batten.

- **Abutments**

Turn **Tyvek® Enercor® Roof** up the face of the wall a minimum of 75 mm or terminate behind a lead flashing. Where a secret gutter is used finish the membrane over the fixing batten.

- **Roof windows**

Dress **Tyvek® Enercor® Roof** around the roof window to drain surface water around the detail. Upstands around windows should be 75 mm min. Follow window manufacturers instructions wherever possible.

Damage repair

Any damage that occurs in **Tyvek® Enercor® Roof** should be made good as soon as possible. Minor damage may be repaired with **Tyvek® Metallised Tape** (single sided). More extensive damage should be covered with a **Tyvek® Enercor®** patch. Large areas of damaged **Tyvek®** should be replaced completely.

Accessories

DuPont™
Tyvek®
Metallised Tape

DuPont™
Tyvek®
Butyl Tape

DuPont de Nemours (Luxembourg) S.à.r.l.
L-2984 Luxembourg
Tel: (+352) 3666 5885
Fax: (+352) 3666 5021
E-mail: tyvek.construction@lux.dupont.com

For more information, visit:
www.construction.tyvek.com



Tyvek®

Recommendations as to methods, use of materials and construction details are based on the experience and current knowledge of DuPont and are given in good faith as a general guide to designers, contractors and manufacturers. This information is not intended to substitute for any testings you may need to conduct to determine for yourself the suitability of our products for your particular purposes. This information may be subject to revision as new knowledge and experience becomes available since we cannot anticipate all variations in actual end-use conditions. DuPont makes no warranties and assumes no liability in connection with any use of this information. Nothing in this publication is to be considered as a licence to operate under a recommendation to infringe any patent right.

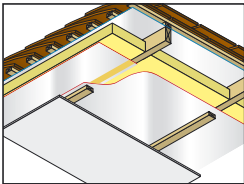
DuPont™ **Tyvek®** INSTALLATION GUIDELINES

DuPont™ Climate Systems: Tyvek® Enercor® and DuPont™ AirGuard®

Key Benefits

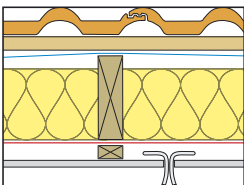
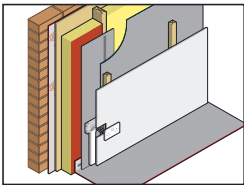
- ✓ Boost insulation performance by up to 20%, with up to 15% savings in home energy costs
- ✓ Blocks 85% of radiant heat in the summer keeping the building cool inside
- ✓ Helps to achieve Part L airtightness requirements

General instructions



• Applications

DuPont™ AirGuard® is installed onto the internal side of a roof or wall system with the reflective foil side facing into the room. The membrane may be laid either horizontally or vertically to suit.



• Cavity

The internal lining (plasterboard, etc.) must be spaced off DuPont™ AirGuard® with 25 mm timber battens to create a service void. This will help to avoid penetrations through the membrane by electrical sockets, light fittings, etc, and to maximise the reflective benefits of the membrane.

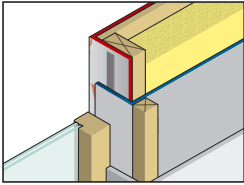
• Fixing to timber

DuPont™ AirGuard® should be temporarily fixed to timber studs, rafters or joists with non-ferrous staples or nails at approx 500 mm centres. The membrane will be properly secured once the timber battening is fixed (see batten space/service void).



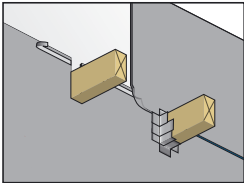
• Laps

Maintain 100 mm laps between each sheet and seal with Tyvek® Butyl Tape or Tyvek® Metallised Tape.



- **Windows/doors**

DuPont™ AirGuard® should be made vapour and convection tight at all window and door openings, loft hatches, etc. The membrane should be sealed tight against the frame with **Tyvek® Butyl Tape** or tucked in and compressed by the frame.



- **Penetration**

Penetrations through **DuPont™ AirGuard®** should be kept to a minimum and any that are made should be sealed.

Penetrations for pipework, wiring and ducting should be sealed with **Tyvek® Butyl Tape** or **Tyvek® Metallised Tape**.

Damage

If **DuPont™ AirGuard®** is abraded or punctured in any way the damaged area should be made good with **Tyvek® Metallised Tape**. Extensive damage should be covered with an **DuPont™ AirGuard®** patch and sealed with **Tyvek® Butyl Tape** or **Tyvek® Metallised Tape**.

Accessories

DuPont™
Tyvek®
Metallised Tape

DuPont™
Tyvek®
Butyl Tape

DuPont de Nemours (Luxembourg) S.à.r.l.
L-2984 Luxembourg
Tel: (+352) 3666 5885
Fax: (+352) 3666 5021
E-mail: tyvek.construction@lux.dupont.com

For more information, visit:
www.construction.tyvek.com



Tyvek®

Recommendations as to methods, use of materials and construction details are based on the experience and current knowledge of DuPont and are given in good faith as a general guide to designers, contractors and manufacturers. This information is not intended to substitute for any testings you may need to conduct to determine for yourself the suitability of our products for your particular purposes. This information may be subject to revision as new knowledge and experience becomes available since we cannot anticipate all variations in actual end-use conditions. DuPont makes no warranties and assumes no liability in connection with any use of this information. Nothing in this publication is to be considered as a licence to operate under a recommendation to infringe any patent right.