DuPont™ AirGuard® Reflective installation

NBS: P10 310 **Also: H20, H21, H30, H31, H40, H51, H92, K10, K21 M30**

For additional information on our product(s) and guidance on how to use them you may wish to refer to our step by step Installation Guide and videos. This and other useful information is on our web site:

www.building.dupont.co.uk

For help with a project please contact the DuPont Building Knowledge Centre. (Contact details can be found at the end of this Installation Sheet).

Air/Vapour Control Layer (AVCL) to EN 13984:2013 shall be **DuPont™ AirGuard® Reflective** as supplied by DuPont Performance Building Solutions, Bristol & Bath Science Park, Dirac Crescent, Emersons Green, Bristol. BS16 7FR

Storage
Rolls of DuPont™ AirGuard® Reflective should be stored palletised or on their sides on a smooth clean surface, under cover and protected from direct sunlight.

Damage
DuPont™ AirGuard® Reflective should be handled with care to prevent tears and punctures occurring. Small punctures can be repaired with Tyvek® Metallised Tape. Large areas should be replaced with new material.

Orientation
DuPont™ AirGuard® Reflective is installed onto the internal side of the building envelope with the reflective foil side facing into an airspace (normally facing into the building interior). The membrane may be laid either horizontally or vertically to suit the substrate.

Fixing – to timber
Initial fixing of DuPont™ AirGuard® Reflective should be made by using a combination of Tyvek® Double Sided (acrylic) Tape and stainless-steel staples. The membrane should be permanently fixed with a timber batten, which will also seal the staple penetrations.

Where battens over the membrane are not being used Tyvek® Butyl Tape (double sided) should be applied to the stud/noggin beforehand and the staple fixed through. Subsequent fixings for the internal lining should also be made through the Tyvek® Butyl Tape.

Fixing - to masonry
DuPont™ AirGuard® Reflective may be fixed to masonry with a suitable anchor fixing system or a masonry nail/screw and EPDM rubber washer. Fixings should be at maximum 500mm centres. Tyvek® Double Sided (acrylic) Tape may be used to fix the membrane in addition to the mechanical method. For airtightness, Tyvek® Butyl Tape (double sided) should be used at fixing points where a compressible washer (eg. EPDM) is not employed. Tyvek® Primer can be applied to chalky or porous masonry to seal the surface and improve adhesion before applying adhesive tape.

Fixing - to steelwork (SFS)
Initial (temporary) fixing of DuPont™ AirGuard® Reflective may be made with continuous strips of Tyvek® Double Sided (acrylic) Tape. These should be supplemented with mechanical fixings through to the steel structure, where suitable drill-tip or self-tapping screws may be used. A rubber or EPDM washer should sit between the screw head and the membrane for air sealing purposes and screw fixings should be spaced vertically at 500mm centres on every stud (typical 600mm centres). Security of the AVCL can also be made by the retrospective installation of battens or lining brackets/channels.

Rainscreen Cladding Applications
DuPont™ AirGuard® Reflective may be fixed to the external face of a cement bonded particle board, OSB or ply sheathing, using a combination of Tyvek® Double-Sided (acrylic) Tape and stainless-steel staples. DuPont™ AirGuard® Reflective may also be secured by fixing through the sheathing to the underlying structure using suitable drill-tip or self-tapping screws. See Fixing - to steelwork (SFS) above.

In many cases, the retrospective fixing of timber battens or metal brackets (& insulation) will provide the principle security for the membrane. Care should be taken to ensure these components are fixed tightly over the membrane to avoid water ingress. If in doubt Tyvek® Butyl Tape may be used between the component and the membrane.

Note: The insulation, brackets/battens and external protection layers should be applied as soon as possible to avoid damage to the membrane.

Fixing to insulation
Fix DuPont™ AirGuard® Reflective to rigid insulation with a proprietary expanding insulation fixing anchor at maximum 500mm centres. Penetrations made by wall ties or cladding brackets must be made good with either Tyvek® Metallised Tape or Tyvek® FlexWrap EZ.

Laps
Maintain 100mm laps between each sheet and seal with Tyvek® Metallised Tape or Tyvek® Double Sided (acrylic) Tape.

Detailing
Cover entirely the inside face of the roof or wall, ensuring maximum coverage. Maintain continuity at adjacent walls, floors and roof junctions with Tyvek® Metallised Tape and/or Tyvek® Double Sided (acrylic) Tape.

Windows/doors/loft hatches
DuPont™ AirGuard® Reflective should be sealed tight against the frame with Tyvek® Metallised Tape or Tyvek® Double Sided (acrylic) Tape. Internal corners should be made good with Tyvek® AirGuard® Tape or Tyvek® FlexWrap EZ. Tyvek® Plastering Tape may be used for all the window sealing work, if plaster or render is later to be applied.

Penetrations
All penetrations through DuPont™ AirGuard® Reflective (lighting, pipework, wiring, etc.) should be sealed with Tyvek® FlexWrap EZ. Fixings to timber, masonry or steelwork may be sealed with Tyvek® Butyl Tape.

Batten space/Service void

The internal lining (plasterboard, etc.) can be spaced off DuPont™ AirGuard® Reflective to create a services 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. Timber battens of minimum 25mm may be used for this. To assist with air-sealing, Tyvek® Butyl Tape can be applied behind the batten beforehand.

Light fittings

Where no services void exists, a sealed enclosure should be formed over light fittings. The enclosure must be sealed to the membrane using Tyvek® Butyl Tape or Tyvek® Metallised Tape. Wiring penetrations must be sealed as much as possible using Tyvek® FlexWrap EZ. Where downlights are specified the preference is to use sealed, low energy (LED) units with F Capped approval, allowing continuous thermal insulation over the light unit. If halogen units are used, they should have an F Capped Approved loft cap fitted above.

Fire regulations

DuPont™ AirGuard® Reflective has Fire Classification E in accordance with EN 13501-1:2007. 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&restype=video

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Tyvek® construction membranes are manufactured by DuPont under an ISO 9001: 2015 Quality Assurance System.