DON & LOW

DALTEX®

Innovators in Nonwoven Technology

1.5m x 45m

BBA BRITISH BOARD OF AGRÉMENT
CERTIFICATE No 05/4221
Don & Low Ltd

CE

MultiTX®

HIGH VAPOUR RESISTANCE AIR AND LIQUID BARRIER UNDERLAY FOR PITCHED ROOFS

- Modern alternative to traditional type 1F roofing felts
- Clean, light and easy to cut
- Protects against wind driven rain, snow and dust
- Exceptional resistance to water penetration
- Stabilised against UV degradation
- Excellent low temperature flexibility
- Excellent durability

Technical Data

Mass (per unit area) (EN 1848-2)		116 g/m²
Tensile Strength (EN 12311-1)	Machine Cross	230 N/50mm 160 N/50mm
Tear Resistance (EN 12310-1)	Machine Cross	240 N 200 N
Water Vapour Transmission (EN 1931)	5 g/m²/24hrs	
Resistance to Water Penetration (EN 1928)		W1

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HIGH VAPOUR RESISTANCE AIR AND LIQUID BARRIER UNDERLAY FOR PITCHED ROOFS

Daltex® MultiTX® can be used in warm & cold, supported & unsupported ventilated pitched roof systems for tiles and slates. In mainland UK and Ireland the underlay should be installed in accordance with British Board of Agrement Certificate No. 05/4221. For general information please see details below:

Cold Pitched Roofs

Where MultiTX® roofing underlay is used, roof spaces or enclosed cavities should be ventilated above the thermal insulation layer. Ventilation openings should be provided on the longer sides of a typical rectangular roof, to allow good through ventilation thereby avoiding stagnant air pockets. The openings should be equivalent in area to a continuous opening of not less than:

a) 25 mm length at eaves for pitches of 15º or less;

b) 10 mm length at eaves for pitches of more than 15º;

Care should be taken to ensure that insulation covers the ceiling completely but does not block the ventilation pathway in the eaves, especially in lower pitched roofs. Proprietary ducts are available that can be fixed between rafters, and allow insulation to be pushed into the eaves with a free opening above.

Additional ventilation openings, equivalent in area to a continuous opening of 5mm, should be provided at high level in:

- roofs pitched at 35º and above:
- roofs of any pitch with a span greater than 10m:
- lean-to and mono-pitch roofs.

Care should be taken to minimise the risk of water vapour coming into contact with cold parts of the roof construction. Factors to be considered and minimised include moisture diffusion through the ceiling, infiltration through unsealed openings / penetrations in the ceiling and services evaporating or venting moisture into cold spaces. Further guidance can be found in BS 5250:2002 Section 8.4, BS 5534:2003, Annex B, and BRE report (BR 262:2002) *Thermal insulation : avoiding risks.*

Gaps in the ceiling should be avoided as far as possible to minimise the flow of warm moist air from the house into the loft. Loft hatches should be airtight and kept closed and service penetrations sealed with mastic. When a new house is drying out, it should be ventilated to the outside and care taken to minimise water vapour entering the roof.

Warm Pitched Roofs

When MultiTX® is used in a hybrid warm roof, the ceiling should be well sealed and a ventilation gap of at least 20mm between the insulation and the underlay should be allowed. A vapour control layer should be used on the underside of the insulation.

General Installation Information

MultiTX® should be fixed with the shiny side uppermost. In unsupported applications the membrane should be draped over the rafters and fixed using tiling battens, ensuring that there is sufficient drape to allow moisture and air movement. The underlay should be draped by more than 6mm and less than 25mm. In supported applications MultiTX® should be installed onto counter battens. MultiTX® is unrolled horizontally across the roof starting at the eaves. Subsequent rows of membrane should be lapped over the underlying row to shed water out and down the slope. Sufficient vertical overlap should also be allowed - see table below and diagram 9

Minimum Overlaps

Roof Pitch	HorizontalLap (mm)		Vertical Lap Limit
(o)	Partially Supported	Fully Supported	(mm)
12.5 to 14	225	150	100
15 to 34	150	100	100
35+	100	75	100

Note: For Republic of Ireland a horizontal overlap of 225mm should be maintained for partially supported roofs up to a roof pitch of 22.5o. All other values in the table above are valid for ROI.

Eaves and roof edges: MultiTX® should be unrolled across the roof and draped a minimum of 150mm onto the proprietary eaves carrier. The eaves carrier needs to extend beyond the outer fascia board / tilting fillet edge to ensure effective drainage into the gutter – see figure 8.

Ridges: In duo-pitched roofs MultiTX® from one elevation should overlap the other by at least 150mm see diagram. MultiTX® should be sealed around penetrations through the roof at the ridge to accommodate high level void ventilation. With mono-pitched roofs MultiTX® should be extended over the mono ridge by at least 100mm. It is recommended that MultiTX® be extended to provide protection to the ends of roof timbers.

Verges: At verges MultiTX® should be lapped over the outer walling (typically brickwork) by at least 50mm. Where the verge has a constructed overhang MultiTX® should be fixed to the outer rafter..

Abutments: MultiTX® should be returned up the abutment by at least 75mm below either a proprietary plastics or lead flashing – see figure 10.

Hips and Valleys: Should be covered with a separate 600mm wide strip of MultiTX®

Details: Ensure that when detailing around service penetrations, roof lights or chimneys MultiTX® is dressed a minimum of 100mm to the up-stand and is effectively sealed and weathered by an appropriate flashing.

Health & Safety

Care should be taken in handling materials at height in particular ensure that manual handling regulations are not exceeded. Sufficient edge protection, netting and appropriate scaffolding and hoisting are necessary to ensure the safe application of roofing membranes and underlays. Before work commences a method statement and risk assessment should be prepared.

Standards and Guidance

The standard that covers the use and installation of membranes in walls and underlays in roofs is the British Standard for the Control of Condensation in Buildings, BS 5250:2002. This is referenced in relevant sections of the Building Regulations in England and Wales, (Approved Document C), Scotland (Standard 3.15) and Northern Ireland (Technical Booklet C). An amended version of BS5250:2002, was issued in December 2005, this should now be followed.

In Southern Ireland Section 2 of Technical Guidance Document F provides guidance on the requirementys for ventilation of roofs; although this makes reference to BS5250:2002, there are some differences in the case of warms roofs which are noted below. All warm roofs should have a 50mm gap between the covering and underlay, which means that counterbattens must be used. Further guidance for the appropriate detailing of roofing comonents is given in the British Standard Code of Practice for Slating & Tiling, BS5543-2003; this should always be followed when installing Daltex, underlays.

For CE Accompanying Technical Document please contact your distributor or visit www.donlow.com

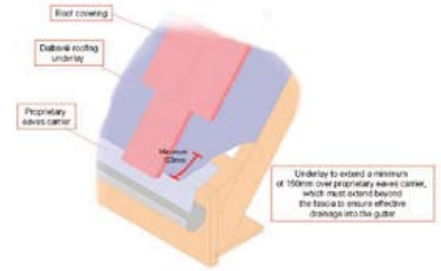

FIGURE 8 - Daltex® Roofing Underlay: Eaves Detail

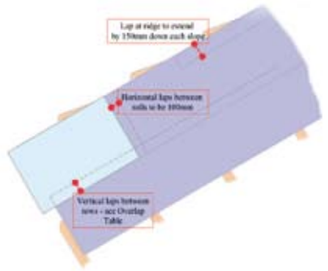

FIGURE 9 - Daltex® Roofing Underlay: Overlap Detail

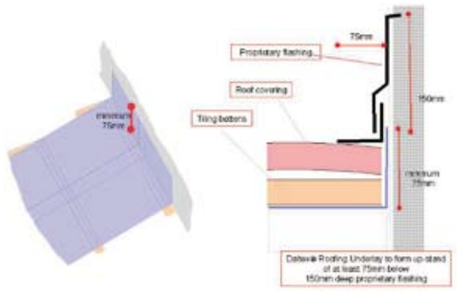

FIGURE 10 - Daltex® Roofing Underlay: Abutment Detail