

Roofshield®

VAPOUR PERMEABLE / AIR PERMEABLE LOW RESISTANCE ROOFING UNDERLAY



USER GUIDE INSTALLATION GUIDE

ROLL DIMENSIONS:

1m x 50m & 1.5m x 50m
(other sizes available on request)
Detail Strip: 500mm x 50m

COLOUR: Green (top)

WEIGHT: 185 grm

THICKNESS: 0.75mm

Quality Control checks are carried out on the incoming materials, during production and on the finished product.

Quality Control checks on the finished product include:

- Weight
- Tensile strength & elongation
- Tear
- Water resistance

TECHNICAL ADVICE




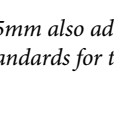
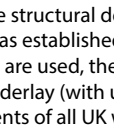
Don & Low has a dedicated technical department which can deal with installation details, view drawings for approval and give specialist advice on the correct use of Don & Low products.

Call 0808 169 4444
membranes@donlow.co.uk

Installation Guidelines
www.donlow.co.uk/install



Wind Uplift Resistance

Product	Identification	Accessories	Manufacturer	Website
Roofshield®	LR		Don & Low Ltd	www.donlow.co.uk
Batten Gauge	Declared wind uplift resistance Pa (N/m ²)		Zone Suitability	Wind Zone Map
≤345mm	1252	None	1-3	
	2192	≥11mm* counter batten	1-5	
	2615	Tape	1-5	
≤250mm	2574	None	1-5	
Softwood sarking with slates**	2974	n/a	1-5	

* A 38mm tile batten may replace a 25mm tile batten, eliminating the 11mm counter batten requirement.

** The slates were placed with a headlap of 54mm, meeting the minimum in BS5534 regulations. The nail diameter of 2.65mm also adheres to the BS5534 minimum. This roof configuration tested represents the least wind uplift-resistant setup allowable by BS5534 standards for these slates.

NOTE 1: In the table above, green indicates that the zone is suitable and light grey indicates that it is not suitable.

NOTE 2: Zone suitability applies only for underlays in applications where a well-sealed ceiling is present, ridge height is not greater than 15m, roof pitch is between 12.5° and 70°, site altitude is not greater than 100m, and no significant site topography is present. Other applications might require underlays with greater wind uplift and it is advisable to seek professional advice.

NOTE 3: Zones 3 and 4 apply to Northern Ireland.

NOTE 4: Taping of overlaps should be undertaken in accordance with the instructions on roll insert.

Additional Wind Uplift Performance Information in Other Roof Configurations

Counter Battens: There is no need to tape joints where counter battens are used. Where softwood boarding or timber sheeting is used below the underlay, counter battens are typically required to provide effective drainage below the battens. Where timber battens are positioned above the underlay, there is no need to tape overlaps to resist wind uplift. Independent testing has established that, where counter battens are used, the wind uplift performance of the underlay (with untaped laps) exceeds the requirements of all UK wind zones.

Battens exceeding 25mm: There is no need to tape joints where 38mm battens are used. BS 5534 (Table 3) recommends minimum batten sizes, typically 25mm deep, for different applications. However, deeper (38mm) battens

may be required by the structural designer. Independent testing has established that, where deeper, 38mm battens are used, the wind uplift performance of the underlay (with untaped laps) exceeds the requirements of all UK wind zones.

Slates Nailed Directly onto Sarking: There is no need to tape joints where natural slate is nailed directly into timber sarking. It is common practice in Scotland, and some rural areas of England, to nail natural slates directly to sarking or underlay boarding, without battens/counter battens. Independent testing has established that, where slates are nailed directly into timber sarking, the wind uplift performance of the underlay (with untaped laps) exceeds the requirements of all UK wind zones.

Roofshield® is tried, tested and trusted by the market



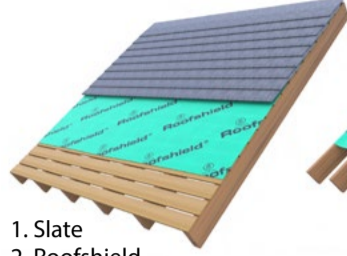
Don & Low
MEMBER OF THRACE GROUP

Don & Low Ltd
Newfordpark House Glamis Road Forfar
Angus DD8 1FR Scotland UK
t +44 (0)1307 452200 f +44 (0)1307
452300 e enquiries@donlow.co.uk
www.donlow.co.uk

Issue 01
November 2023

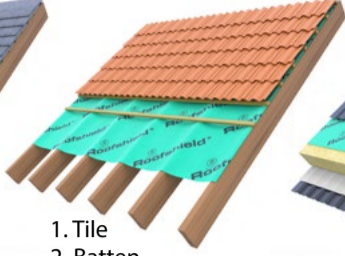
TYPICAL ROOF CONSTRUCTIONS

Cold Roof Slate Sarking Detail



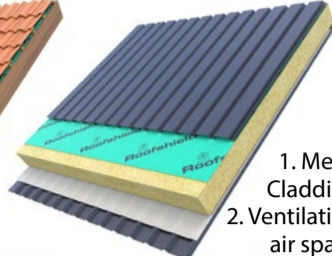
1. Slate
2. Roofshield
3. Timber sarking / Board
4. Rafter

Cold Roof Tile Detail



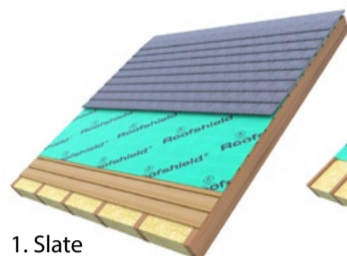
1. Tile
2. Batten
3. Roofshield (draped)
4. Rafter

Metal Roof Profile Detail



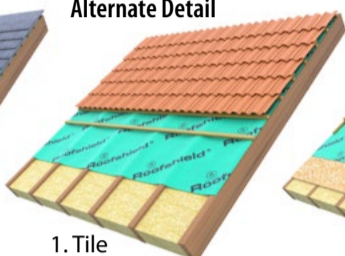
1. Metal Cladding
2. Ventilation air space
3. Roofshield
4. Insulation
5. Vapour Control Layer
6. Metal Lining

Warm Roof Slate Sarking Detail



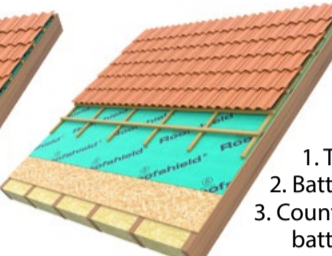
1. Slate
2. Roofshield
3. Timber sarking
4. Insulation, 5. Rafter

Warm Roof Tile Alternate Detail



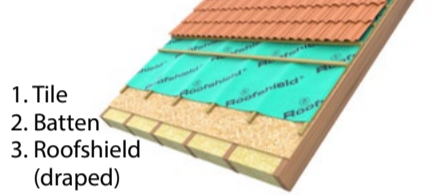
1. Tile
2. Batten
3. Roofshield (draped)
4. Insulation, 5. Rafter

Warm Roof Tile Detail



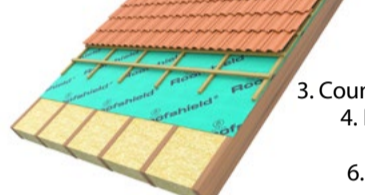
1. Tile
2. Batten
3. Counter batten
4. Roofshield
5. Insulation
6. Rafter

Warm Roof Tile with OSB Alternate Detail



1. Tile
2. Batten
3. Roofshield (draped)
4. Counter batten,
5. OSB
6. Insulation,
7. Rafter

Warm Roof Tile with OSB Detail



1. Tile
2. Batten
3. Counter batten
4. Roofshield
5. OSB
6. Insulation
7. Rafter

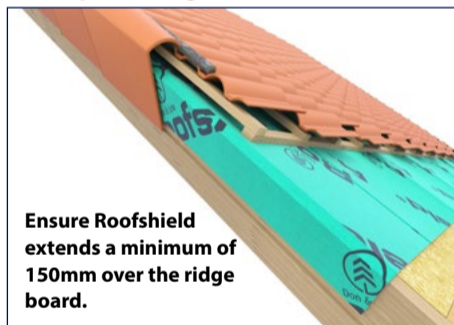
INSTALLATION OF ROOFSHIELD

RIDGES

Duopitch Ridge Detail



Monopitch Ridge Detail



VERGE AND SLOPING VALLEY

Verge Abutment Detail



Valley Detail



PIPE PENETRATION AND EAVES

Pipe Detail



Eaves Detail



ROOFSHIELD DETAILS

Site Handling and Installation

Upon delivery, Roofshield rolls are individually wrapped in clear polythene sleeves. A 'User Guide' accompanies each roll. Store rolls on a clean, level surface under cover.

Tile and Slate Roofs:

Roofshield is horizontally laid across rafters, starting from the eaves. Secure it using battens or counter-battens for tile and slate roofs. The green side with "Don & Low Roofshield" should face up. Minimum horizontal laps are provided in the table, sourced from BS5534:2014.

MINIMUM HORIZONTAL LAP

Rafter Pitch	Partially Supported	Fully Supported
12½° - 14°	225mm	150mm
15°-34°	150mm	100mm
35°	100mm	75mm

Ensure a batten conceals underlay laps, and if needed, adjust the underlay lap to align with the nearest slating or tiling batten. For vertical laps, maintain a width of at least 100mm and position them above a rafter. Maintain an edge distance of at least 50mm to the fixings.

Metal Roofs:

Roofshield must be installed for sheet roof applications to create a seamless membrane covering the entire roof area, facilitating water drainage to the gutters. Avoid draping Roofshield between purlins on low-pitch metal roofs to prevent unsatisfactory ponding. It's preferable to support Roofshield fully, ensuring a clear drainage path. If full support isn't practical on low-slope roofs, tape the laps to prevent water from reaching the insulation below. At penetrations like vent pipes and rooflights, place an additional Roofshield piece upslope and tape it to direct water away on each side of the opening. Installing lightweight membranes in high wind conditions is challenging, so take appropriate precautions during installation.

Installation Tips:

Pay attention to detail, preventing blockages that could hinder water drainage. Dress Roofshield into gutters at the eaves. Consider air tightness when assessing ventilation needs. Follow BS5534:2014 for underlay installation under tiling and slating.

Ventilation and Sealing:

Ventilate the dwelling under the roof space as per building regulations—seal penetrations. Install extractor fans in high-humidity rooms and lag cold water tanks in the loft space.

INSTALLATION

Cold Roof Installation Guidelines:

Install Roofshield® with the green side facing upwards, following the conventional approach and aligning it parallel to the eaves.

Consider the air tightness of the slate or tile when determining the need for ventilation above the underlay. Place insulation horizontally at ceiling level, firmly pressed into the eaves against the underlay to eliminate gaps. Adhere to BS 5534:2014 for general underlay installation under Tiling and Slating.

For specific constructions, including U-value calculations and condensation risk analysis, seek advice from the Technical Department: Telephone 0808 169 4444 or membranes@donlow.co.uk.

Ventilate the dwelling beneath the roofspace in compliance with Building Regulations. Install extractor fans in high-humidity areas like kitchens and bathrooms. Cover cold water tanks in the loft space and lag all pipework.

Seal penetrations into the loft space from both inside and outside. Ensure loft hatches fit draught-free.

Fire Safety and Class Rating:

Roofshield achieves Class E under EN 11925-2 testing.

When Roofshield is used without support, there is a fire spread risk if accidentally ignited during maintenance. Exercise caution during building and maintenance to prevent accidental ignition, especially during works involving a roofer's or plumber's torch.

Roofshield Detail Strip:

Roofshield Detail Strip aids installation in narrow areas, like valleys and dormers. It's an efficient option for small roof portions.

Important Notes:

- Permeable roof tile underlay is partially water resistant.
- In certain conditions, limit underlay exposure, especially in harsh weather.
- Refer to BBA Bulletin No. 2 for guidance on permeable roof tile underlay use.
- This guide by Don & Low Ltd is for general information; the ultimate product suitability responsibility rests with installers or end users. Follow installation guidelines and relevant Codes of Practice.
- An underlay is not a total waterproof barrier and if used as a temporary covering, some rain penetration may occur.
- In certain conditions, particularly if persistent rainfall is combined with subsequent freeze/thaw conditions, an underlay should not be exposed for more than a few days.
- Certain timber preservatives can adversely affect some underlays. If treated timber or preservatives are used, they should be allowed to dry out before the tiling and slating battens are installed. The manufacturers of the preservative materials should be consulted to ensure compatibility.
- Where old bitumen felt, spray foam or other contaminants are being removed prior to the membrane installation, the installer must ensure all residual material is removed as it may have a detrimental effect on the membranes performance.