



BREATHABLE ROOF TILE UNDERLAY

& SECONDARY BARRIER TO PREVENT THE INGRESS OF WIND DRIVEN RAIN, SNOW AND DUST

Danelaw® LR180 has been developed as a low resistance breathable roof tile and slate underlay. It is intended for use on pitched roofs as a secondary barrier installed beneath tiles and slates. It can be used unsupported draped over timber rafters or counter battens, or fully supported over timber sarking or rigid insulation.

FEATURES AND BENEFITS

- BBA approved for use in warm and cold roofs
- Classified as LR (low resistance) in accordance with BS 5250
- Durable and resistant to damage from foot traffic
- UV resistant
- Temporary weather protection prior to tile or slate fixing
- Contributes to weathertightness of a completed roof
- Airtight when sealed for improved energy efficiency

STANDARDS AND CERTIFICATION

- Complies with the requirements BS 5534 *Slating & Tiling for pitched roofs and vertical cladding. Code of practice;*
- Complies with the ventilation requirements in BS 5250 *Standard & NHBC Standards Chapter 7.2*
- CE marked in accordance with BS EN 13859-1
- BBA approved certificate number 17/5425



PRODUCT CODES AND SIZES

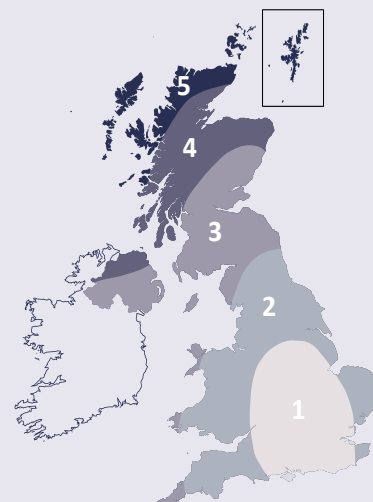
PRODUCT NAME	SIZE OF ROLL	PRODUCT CODE
Danelaw® LR180.....	1.0m x 50m	DLR180 1.0
Danelaw® LR180.....	1.5m x 50m	DLR180 1.5

The complete range of Danelaw® LR breathable roof tile underlays are independently tested by the BRE. The zonal suitability for Danelaw® LR180, when used unsupported as follows:

BATTEN GAUGE	WIND UPLIFT RESISTANCE	WIND ZONES				
		1	2	3	4	5
≤345mm	1378 Pa	✓	✓	✓	✓	-
≤250mm	3145 Pa	✓	✓	✓	✓	✓
≤100mm	>3145 Pa	✓	✓	✓	✓	✓

NOTE 1: 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 75°, site altitude is not greater than 100m, and no significant site topography is present. Other applications might require underlays with greater wind uplift resistance and it is advisable to seek professional advice.

NOTE 2: Zones 3 and 4 apply to Northern Ireland. Zone 3 applies to the Scilly Isles and Channel Islands. Zone 5 applies to the Shetland Islands.



* When used with separate tape

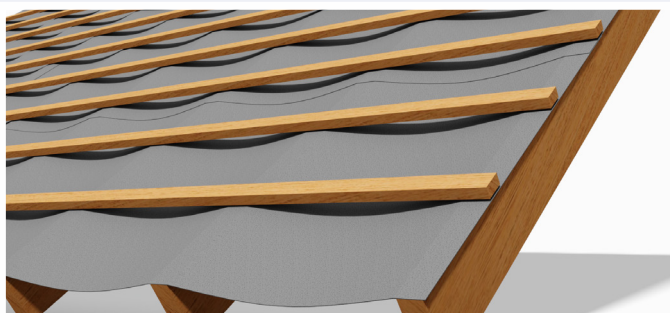
APPLICATION

The product should be installed in accordance with the manufacturer's installation guidelines and relevant clauses in BS 5534; *Slating and tiling for pitched roofs and vertical cladding Code of practice*, and BS 8000, *Workmanship on building sites, Code of practice for slating and tiling of roofs and walls*.

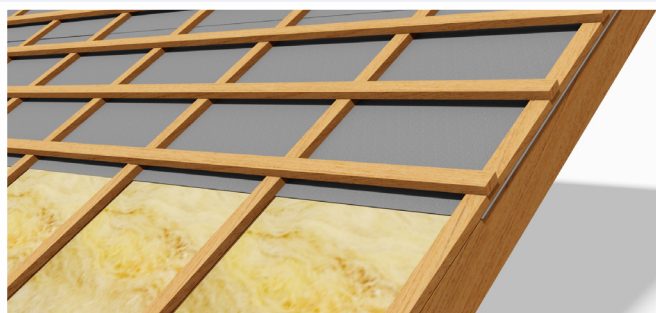
It is recommended that the ventilation guidelines in BS 5250, *Code of practice for control of condensation in buildings and NHBC Standards Chapter 7.2 Pitched Roofs* are followed. The level of roof ventilation required will depend on the building type, condensation risk, roof configuration and overall size of the roof.

DESIGN APPLICATIONS

Danelaw® LR180 can be installed draped over timber rafters or counter battens, or fully supported on sarking board or rigid insulation.



Draped over rafters - cold roof

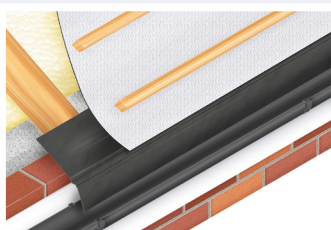


Draped over rafters - fully supported warm roof

TECHNICAL DATA

DANELAW® LR180		PERFORMANCE	EN 13859-1:2010 EN 13859-2:2010
Weight		180 gsm	
Roll length		50m	
Roll width		1.0m & 1.5m	
Resistance to water penetration [class]	Before artificial ageing	W1	
	After artificial ageing	W1	
Water vapour transmission properties [sd(m)]		0.02	
Resistance to penetration of air [m3/(m² x h x 50 Pa)]		≤0.02	
		LONGITUDINAL	TRANSVERSE
Tensile strength [N/50mm]	Before artificial ageing	460 (+/-50)	250 (+/-50)
	After artificial ageing	420 (+/-40)	225 (+/-20)
Elongation [%]	Before artificial ageing	75 (+/-20)	90 (+/-20)
	After artificial ageing	55 (+/-40)	65 (+/-40)
Resistance to tearing [N]		170 (+/-45)	215 (+/-55)
Reaction to Fire [class]		E	
Flexibility at low temperatures [°C]		- 40°C	
UV resistance [months]		3 months	

RELATED PRODUCTS



Rigid Support Tray
Product Code: HDRFST



Roofing Underlay Support Tray
Product Code: HD 3000



FOR ADDITIONAL HIGH VENTILATION
Dry Fix Rollout Ridge and Hip
Product Code: HD ROR & HD CON



FOR ADDITIONAL LOW VENTILATION
Eaves and Soffits Vents
HD 12000U and HD 8000