RUSSELL ROOF TILES

Product Technical Data Sheet

RUSSELL

RUSSFAST LR UNDERLAY

For Warm or Cold Roof Construction
Compatible with all Russell Roof Tiles, Accessories and RussFast Solar

EN 13859-1 Flexible Sheets for waterproofing - Definitions and characteristics of underlays. Part 1: Underlays for discontinuous roofing		
Weight	184 (-8) gsm	
Resistance to Water Penetration: Before artificial ageing: After artificial ageing:	 Class W1 Class W1	
Maximum Tensile Strength: Before artificial ageing: After artificial ageing:	 MD 320 (-20)N/50mm 330 (-20)N/50mm	 CD 300 (-30)N/50mm 290 (-20)N/50mm
Elongation: Before artificial ageing: After artificial ageing:	 90 (+15)% 70 (-25)%	 90 (+15)% 70 (-25)%
Tear Resistance (nail shank)	190 (-15)N	200 (-15)N
Flexibility at Low Temperature	-40°C	
Water Vapour Resistance	≤0.10MNs/g	
Equivalent Air Layer Thickness	≤0.02sd(m)	
Reaction to Fire	(NPD)	

LR

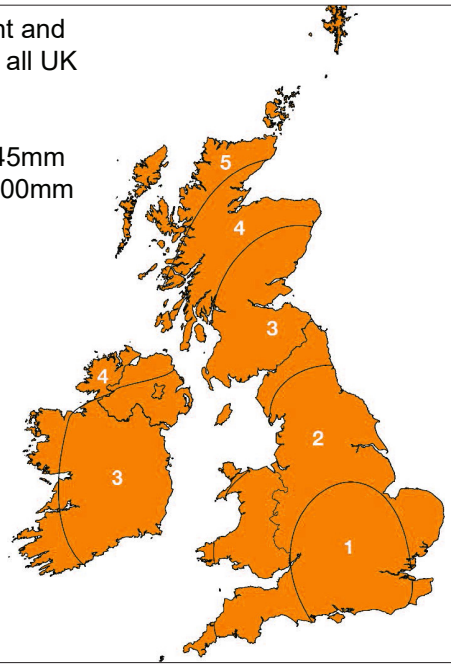
Roll Size
50m x 1.0m (50m²)

Installation
Please see reverse

Wind Uplift Performance

BS.5534 compliant and suitable for use in all UK wind zones 1-5

Batten Gauge ≤345mm
Rafter Centres ≤600mm



RussSpec 15-Year Guarantee

UK CA

5 PP

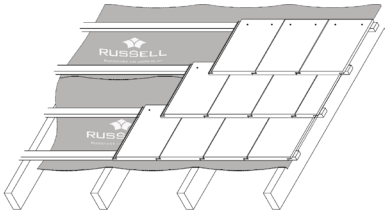
PMOB014 Issue 1 May 2024

www.russellrooftiles.com

RussFast LR Underlay

50m x 1.0m (50m²)

Laps		
Roof Pitch	Horizontal Lap up slope	Vertical Lap across slope
12.5° - 14°	225mm	100mm min.
≥15°	150mm	100mm min.



Cold Roofs

If a ceiling is well sealed, as defined in BS 5250, condensation in dwelling sized roofs can be controlled by the use of RussFast LR Underlay and a reduced level of ventilation from that required with impermeable or Type HR underlays. This should be either 3,000mm² per metre at eaves or low level or 5,000mm² per metre at ridge or high level. In larger than dwelling sized roofs the ventilation should be 5,000mm² per metre at eaves or low level and 5,000mm² per metre should be provided at ridge or high level.

If the ceiling is not well sealed (as is likely in re-roofing situations) then the ventilation should be increased to 10,000mm² per metre at low level and 5,000mm² per metre at high level in accordance with BS 5250.

This can be achieved with Eaves Vent System (6m) at low level and RussFast Dry Ridge (Ventilated) at high level.

Warm Roofs

If the ceiling is well sealed, as defined in BS 5250, condensation can be controlled by the use of RussFast LR Underlay with no additional ventilation. RussFast LR Underlay can be laid draped unsupported or fully supported on insulation. To ensure the integrity of a well sealed ceiling, a separate vapour control layer must also be used on the warm side of the insulation. If there is any doubt about the ability to provide and maintain an effectively sealed vapour control layer then ventilation should be provided beneath the underlay of 25,000mm² per metre at eaves or low level and 5,000mm² per metre at ridge or high level. This can be achieved with Eaves Vent System (6m) at low level and RussFast Dry Ridge (Ventilated) at high level.

Batten Spaces

Where RussFast LR vapour permeable underlay is to be used to contribute to condensation control, it does so by allowing water vapour to escape into the atmosphere via the roof covering. Russell Roof Tiles concrete tile range can be considered air permeable so can be considered sufficiently air open when laid. Consideration should be given to any anticipated build-up of moss or debris that could reduce air gaps in the future.

If using non-Russell tiles or slates which are tight fitting, if an air impermeable solar PV system is used, or if the roof will accumulate dirt, moss or debris over the service life, it is necessary to introduce counterbattens and to ventilate the batten space. In this case, 25mm counterbattens must be used above the underlay and ventilation provided – 25,000mm² per metre at eaves or low level and 5,000mm² per metre at ridge or high level.

Main Roof Areas

Lay RussFast LR Underlay with minimum laps shown in the Laps table. Fix the underlay using extra-large head clout nails of copper, aluminium alloy or galvanised steel, 20mm x 3.5mm.

When laying RussFast LR Underlay over counterbattens or rafters, allow shallow drapes (max.15mm). This is to allow any moisture on the upper surface of the underlay to drain away safely under the tiling/ slating battens preventing ponding or wetting.

Eaves

Fit Russell Eaves support tray in accordance with Eaves Vent System instructions.

Verges

Lap underlay 25 - 50mm onto the outer skin of masonry, or on to the flying rafter for an overhanging verge. Or install in accordance with Dry Verge installation requirements.

Ridges

For over underlay ventilation installation, lap RussFast LR Underlay at least 150mm down each side of the ridge. For under underlay ventilation installation where dry ventilated ridge systems are used, stop RussFast LR Underlay 50mm short of apex on each side in accordance with RussFast Ridge requirements.

Valleys

Lay a strip of RussFast LR Underlay not less than 600mm wide up valleys, lapped under the main roof underlay.

Hips

Lay a strip of RussFast LR Underlay not less than 600mm wide up hips, lapped over the main roof underlay.

Notes

RussFast LR Underlay may be used for cold roofs with ventilated or unventilated loft spaces and with warm roofs with insulation between and or above rafters.

Do not lay RussFast LR Underlay in direct contact with any undried timber preservative (whether water-based or solvent-based).

In accordance with good building practice, this product should be covered as soon as possible after installation and preferably not more than one month after initial exposure. Within this period, when correctly installed RussFast LR Underlay will provide temporary protection against rain prior to installation of tiles. If the exposure period exceeds one month then advice must be sought from Russell Technical department.

Lap restraint - Use a fly batten or restraining batten in accordance with BS 5534 when the standard tiling battens do not coincide with the lap unless counter battens are used.

Where pipes and other components penetrate the underlay, cut neatly, accurately and turn flanges up to give a tight, water shedding fit. Install underlay seals, tapes, catchment trays and weathering membranes where specified.

Handle carefully to prevent tears and punctures and repair with adhesive tape any which do occur. Store rolls on a flat dry surface, protected from the weather.