

A Guide to Breathable Membranes for Pitched Roofs



Breathable membranes allow the roof to breathe, negating the requirement for traditional ventilation. They are suitable for use as a full supported or unsupported underlay beneath tiled or slated pitched roofs, in warm or cold non-ventilated and cold ventilated roofs.

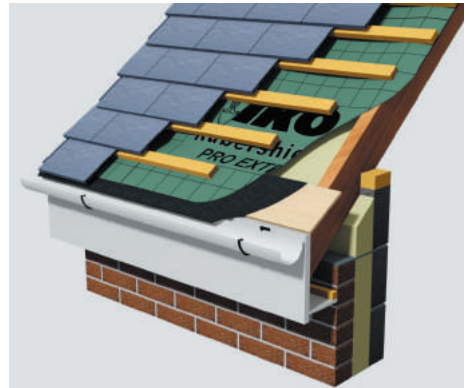
Breathable membranes are very popular and are increasingly used on a wide range of projects. Their adaptable, multi-purpose use is seen by specifiers, merchants and installers as the optimum solution to underslating requirements.

The IKO pitched roof breathable underlay range is designed to:

- Transport any moisture resulting from any ingress through the primary roof covering into the roof drainage system
- Provide a barrier to minimise the wind uplift load, acting on the slates or tiles
- Provide a secondary barrier to the ingress of wind driven rain, snow and dust
- Provide temporary weather protection before the installation of the primary roof covering

Features & Benefits:

- BBA Approved*
- Highly breathable
- Allows escape of harmful moisture vapour
- Robust and hardwearing
- Good UV stability
- Effective temporary weathering protection
- Grid markings for quick and accurate cutting
- For warm and cold roof applications



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Geographical Wind Zones

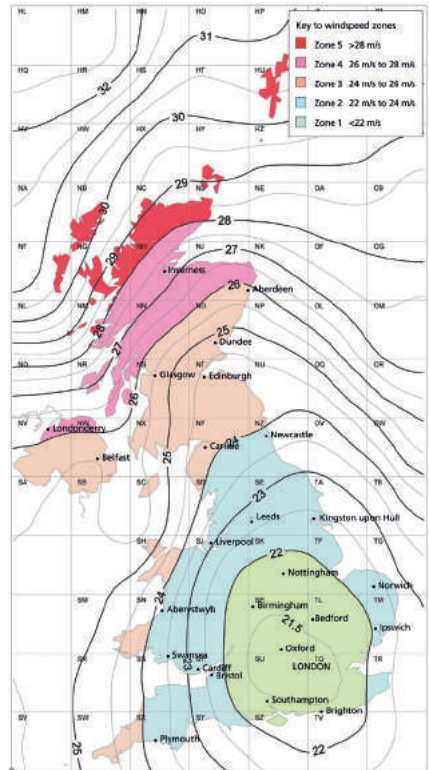
Applicability of IKO Rubershield underlays according to BS5534:2014 clause A.8

Underlay type	Wind Uplift Pressure (Pa)				Supported application**
	Battened lap		Taped lap*		
	345mm batten gauge	250mm batten gauge	345mm batten gauge	250mm batten gauge	
Rubershield ECO	None	Zones 1 to 3	Zones 1 to 4	Zones 1 to 5	Zones 1 to 5
Rubershield ECO EXTRA	None	Zones 1 to 4	Zones 1 to 5	Zones 1 to 5	Zones 1 to 5
Rubershield PRO	Zone 1	Zones 1 to 5	Zones 1 to 5	Zones 1 to 5	Zones 1 to 5
Rubershield PRO EXTRA	Zones 1 to 2	Zones 1 to 5	Zones 1 to 5	Zones 1 to 5	Zones 1 to 5
IF Undertile Felt	Zones 1 to 5	Zones 1 to 5			

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 resistance and it is advisable to seek professional advice.

*Laps were taped using Jointing Tape, BRE Report 302-776 Issue 5, 19th March 2015; The use of taped products is currently outside the scope of BBA Certificate 15/5190.

**As specified within BS5534:2014, membranes tested to Zone 1 at equal to or less than 250mm Batten Gauge are suitable for use in all Wind Zones at any Batten Gauge when fully supported by a nominally air tight sheet sarking board i.e. plywood, OSB, rigid insulation board.






Wind Uplift Pressure

Summary of the uplift resistance values achieved by IKO Rubershield underlays

Underlay type	Wind Uplift Pressure (Pa)			
	Battened lap		Taped lap*	
	345mm batten gauge	250mm batten gauge	345mm batten gauge	250mm batten gauge
Rubershield ECO	696	1244	1391	3278
Rubershield ECO EXTRA	752	1512	1679	Not tested
Rubershield PRO	876	1711	1944	Not tested
Rubershield PRO EXTRA	1072	2031	2320	Not tested
IF Undertile Felt	3268	Not tested		



The IKO Range of Breathable Membranes for Pitched Roofs

	Rubershield ECO	Rubershield ECO EXTRA	Rubershield PRO	Rubershield PRO EXTRA
				
Characteristics				
Thickness (mm)	0.35	0.43	0.48	0.5
Mass per unit area (g.m ⁻²)	100	120	140	160
Roll length (m) ⁽¹⁾	50	50	50	50
Roll width (m) ⁽¹⁾	1.0, 1.5	1.0, 1.5	1.0, 1.5	1.0, 1.5
Colour upper / lower	grey	light brown	black	green
Tensile strength (N(50 mm) ⁻¹)				
longitudinal	180	200	240	260
transverse	90	110	150	200
Elongation (%)				
longitudinal	60	60	60	60
transverse	60	60	60	60
Tear resistance (N)				
longitudinal	70	80	100	100
transverse	60	70	80	90
Resistance to air penetration (m ³ /m ² .h.50 Pa)	0.093	-	-	0.072
Watertightness				
unaged	W1	W1	W1	W1
aged ⁽²⁾	W1	W1	W1	W1
Water vapour transmission (S _v)(m)	0.016	0.05	0.04	0.01

⁽¹⁾ Other lengths, widths and colours are available.

⁽²⁾ Aged in accordance with BS EN 13859-1:2014, Annex C.



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April 2017

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