INTELLO®

Hydrosafe® high-performance vapour control membrane, suitable for all fibrous insulation mats and boards



Technical data

	Material
Fleece	Polypropylene (50% recycled material)
Functional film	Polyethylene copolymer

Property	Regulation	Value
Colour		White-translucent
Surface weight	EN 1849-2	85 g/m² ; 0.28 oz/ft²
Thickness	EN 1849-2	0.25 mm ; 10 mils
Water vapour resistance factor µ	EN 1931	56 000
sd value	EN 1931	14 m
sd value, humidity-variable	EN ISO 12572	0.25 - >25 m
g value	EN 1931	70 MN·s/g
g value, humidity-variable	EN ISO 12572	1.25 - >125 MN·s/g
Vapour permeance	ASTM E96-A	0.23 perms
Vapour permeance, humidity-variable	EN ISO 12572	<0.13 - 13 perms
Hydrosafe value (sd)	DIN 68800-2	2 m
Reaction to fire classification	EN 13501-1	B-s1, d0
Surface burning characteristics	ASTM E84	Class A (Flame Spread 0; Smoke development index 35)
Airtightness	ASTM E2178	≤ 0.004 cfm/ft²
Airtightness	EN 12114	Tested
Tensile strength MD/CD	EN 12311-2	110 N/5 cm / 80 N/5 cm ; 13 lb/in / 9 lb/in
Elongation MD/CD	EN 12311-2	40% / 35%
Nail tear-resistance MD/CD	EN 12310-1	60 N / 60 N ; 13 lbf / 13 lbf
Durability after artificial ageing	ETA-18/1146	Passed
Temperature resistance, permanent	EN 1109, EN 1296, EN 1297	-40 °C to 80 °C ; -40 °F to 176 °F
Thermal conductivity		0.04 W/(m·K) ; 0.3 BTU·in/(h·ft²·°F)
Passive House Certification	Passivhaus Institut	phA
CE labelling	ETA-18/1146	Yes

Areas of application

Vapour control (alternate terms: vapour check or retarder) membrane for use on roofs, walls, ceilings and floors on structures that are open or closed to diffusion on the exterior, e.g. flat/pitched roofs and green roofs, after appropriate design calculations have been carried out.

Supply forms

Art. no.	Length	Width	Folded	Contents	Weight	Sales unit	Container	GTIN
10091	20 m	1.5 m		30 m²	3 kg	1	42	4026639011176
10090	50 m	1.5 m		75 m²	7 kg	1	20	4026639011190
10077	50 m	3 m		150 m²	14 kg	1	20	4026639011985
12221	50 m	3 m	✓	150 m²	14 kg	1	20	4026639122216

Advantages

- ✔ Best possible protection against moisture damage to structures and mould because this product is humidity-variable with a variation of a factor of over 100
- ✔ Long-term protection: performance tested and certified by independent testing authority (ETA-18/1146)
- ✔ Well-protected winter building sites thanks to hydrosafe® behaviour
- ✔ Can be combined with all fibrous insulation mats and boards
- ✔ Easy to work with: dimensionally stable, no splitting or tear propagation
- ✔ Excellent values in hazardous substance testing, has been tested according to the ISO 16000 evaluation scheme

General conditions

Where possible, INTELLO should be installed in such a way that adhesion can be carried out using single-sided adhesive tape on the smooth (printed) side of the sheeting. It should be installed taut and without slack either in parallel with or perpendicular to the supporting structure, e.g. the rafters. In the case of horizontal installation (perpendicular to the supporting structure), the separation distance of the supporting structure is limited to a maximum of 100 cm (3').

After installation, perpendicular battens on the inside at a separation distance of a maximum of 50 cm (1' 8") must be fitted to carry the weight of the insulation material.

If regular tensile loads on adhesive tape bonds are to be expected – for example, due to the weight of the insulation material – when using mat or panel-shaped insulation materials, an additional supporting batten should be fitted over the overlap sealing. When attaching the membranes in the case of mat or panel-shaped insulation materials, a maximum separation distance of 10 to 15 cm (4" to 6") applies for the fastening staples, which must be at least 10 mm (3/8") wide by 8 mm (5/16") long. The overlaps between the membrane strips must be approx. 8 to 10 cm (3" to 4").

Airtight seals can only be achieved on vapour control (alternate terms: vapour check or retarder) membranes that have been fitted with no folds or creases. Ventilate regularly and systematically to prevent the build-up of excessive humidity (e.g. during the construction phase). Occasional, intermittent ventilation is not sufficient to remove large quantities of moisture due to construction work from a building; use a dryer if necessary.

As a consequence of their humidity-variable properties, humidity-variable vapour control membranes are generally subject to swelling and contraction when they absorb or release moisture. This particularly applies in the case of major changes in the ambient humidity (e.g. after wet work has been carried out or after strong drying). For this reason, it is important to provide sufficient ventilation to remove high levels of air humidity, to use secure mechanical fastening by means of staples and support battens, and to provide sufficient slack to accommodate relative motion.

To prevent condensation formation, INTELLO should be sealed and taped in an airtight manner immediately after the installation of the thermal insulation. This particularly applies when working in winter.

ETA – 18/1146

EPD verified

INTELLO – sheet vapour barrier Complies with NATIONAL STANDARD OF CANADA CAN/CGSB-51.33-M89
INTELLO – pare-vapeur enfeuille Copnforme à la NORME NATIONALE DU CANADA CAN/CGSB-51.33-M89

NSAI Agrément
pro clima Intelligent Airtight System
CERT No. 07/0297

BBA APPROVAL INSPECTION TESTING CERTIFICATION
CERTIFICATE 14/5155

VTT EXPERT SERVICES OY
VTT-C-8580-12
TUOTESERTIFIKAATTI

phA CERTIFIED COMPONENT Passive House Institute

100X humidity-variable
s_d 0.25 – >25 m
g value 1.25 – >125 MNs/g
Hydrosafe® value 2 m

Tested for hazardous substances according to ISO 16000

BRANZ Appraised
Appraisal No. 1149

UK CA

Made in Germany developed and produced by pro clima

The applications and conditions described here are based on current research findings and practical experience. We reserve the right to change the recommended application designs and installation methods and to develop and thus change the properties and quality of individual products. We would be glad to inform you about the current state of engineering knowledge at the time that your installation is carried out.

The planning documentation that is available from pro clima provides further information about installation methods and design details. If you have questions, please contact pro clima Technical Support in Germany at +49 6202 278245.

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