INTELLO® PLUS

Reinforced hydrosafe® high-performance vapour check, suitable for all fibrous insulation materials

Technical data

	Material
Fleece	Polypropylene
Functional film	Polyethylene copolymer
Reinforcement	Polypropylene non-woven fabric

Property	Regulation	Value
Colour		White-translucent
Surface weight	EN 1849-2	110 g/m² ; 0.36 oz/ft²
Thickness	EN 1849-2	0.4 mm ; 16 mils
Water vapour resistance factor μ	EN 1931	35 000
sd value	EN 1931	14 m
sd value, humidity-variable	EN ISO 12572	0.25 - >25 m
g value		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
Surface burning characteristics	ASTM E84	Class A (Flame Spread 0; Smoke development index 35)
Fire class	EN 13501-1	E
Airtightness	ASTM E2178	≤ 0.004 cfm/ft²
Airtightness	EN 12114	Tested
Tensile strength MD/CD	EN 13859-1 (A)	340 N/5 cm / 220 N/5 cm ; 39 lb/in / 25 lb/in
Elongation MD/CD	EN 13859-1 (A)	15% / 15%
Nail tear resistance MD/CD	EN 13859-1 (B)	200 N / 200 N ; 45 lb / 45 lb
Durability after artificial ageing	ETA-18/1146	Passed
Temperature resistance	EN 1109, EN 1296, EN 1297	Permanent -40 °C to 80 °C ; -40 °F to 176 °F
Thermal conductivity		0.04 W/(m·K) ; 0.3 BTU·in/(h·ft²·°F)
CE labelling	ETA-18/1146	Yes

Areas of application

Vapour check (alternate terms: vapour control 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.	GTIN	Length	Width	Folded	Contents	Weight	Sales unit	Container
10093	4026639011237	20 m	1.5 m		30 m²	4 kg	1	42
10092	4026639011244	50 m	1.5 m		75 m²	9 kg	1	20
10076	4026639011992	50 m	3 m		150 m²	18 kg	1	20
12222	4026639122223	50 m	3 m	✓	150 m²	18 kg	1	20

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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
- ✔ Can be combined with all fibrous insulation materials (including blown-in insulation)
- ✔ Permanent protection: performance tested and certified by independent testing authority (ETA-18/1146)
- ✔ Protected winter building sites thanks to hydrosafe® behaviour
- ✔ Test winner in April 2012 with the German product-testing foundation 'Stiftung Warentest'
- ✔ 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 PLUS 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 membranes that have been laid without folds or creases. Ventilate regularly to prevent 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.

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

Additional instructions for blown-in insulation materials
INTELLO PLUS can also be used as a boundary layer for blown-in insulation materials of all types. A reinforcement structure ensures that there is little expansion during the blowing-in process. Installation in parallel with the supporting structure has the advantage that the joint will be on a solid base and is protected by this base.

The separation distance between the staples used to fasten the membrane strips must be a maximum of 5 to 10 cm (2" to 4"). Staples should be oriented parallel with construction timber so that membranes do not tear at the staples when insulation material is being blown in. If installation is carried out perpendicular to the supporting structure, a supporting batten should be fitted directly over the membrane strip overlap with its airtight sealing in order to avoid tensile loading on the adhesive bond.

When working in cold outdoor climates, the blown-in insulation material should be inserted immediately after installation of INTELLO PLUS. This will protect the membrane against condensation formation.

The information provided here is based on practical experience and the current state of knowledge. We reserve the right to make changes to the recommended designs and processing or to make alterations due to technical developments and associated improvements in the quality of our products. We would be happy to inform you of the current technical state of the art at the time you use our products.

Further information about installation and design details is available in the pro clima planning documentation. If you have any questions, please contact [pro clima Technical Support](https://proclima.com/service/technical-support).

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