MILLS INTELLE

Technical data

	Substance
Fleece	Polypropylene
Membrane	Polyethylene copolymer
Reinforcement	Polypropylene non-woven fabric

Colour white-transparent Surface weight EN 1849-2 110 g/m²; 0.36 oz/ft² Thickness EN 1849-2 0.4 mm; 16 mils Water vapor 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 1.25 - >125 MN·s/g Vapour permeance ASTM E96-A 0.23 US perms Vapour permeance humidity variable EN ISO 12572 < 0.13 - 13 US perms Hydrosafe value (sd) DIN 68800-2 2 m Surface burning characteristics ASTM E84 Class A (Flame Spread 0; Smoke development index 35) Fire rating EN 13501-1 E Airtightness EN 12114 tested Airtightness ASTM E2178 ≤ 0.004 cfm/ft²	Attribute	Regulation	Value
Thickness EN 1849-2 0.4 mm; 16 mils Water vapor 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 1.25 - >125 MN·s/g Vapour permeance ASTM E96-A 0.23 US perms Vapour permeance humidity variable EN ISO 12572 < 0.13 - 13 US perms Hydrosafe value (sd) DIN 68800-2 2 m Surface burning characteristics ASTM E84 Class A (Flame Spread 0; Smoke development index 35) Fire rating EN 13501-1 E Airtightness EN 12114 tested	Colour		white-transparent
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Vapour permeance ASTM E96-A 0.23 US perms Vapour permeance humidity variable EN ISO 12572 < 0.13 - 13 US perms	g-value		70 MN·s/g
Vapour permeance humidity variable Hydrosafe value (sd) DIN 68800-2 2 m Surface burning characteristics ASTM E84 Class A (Flame Spread 0; Smoke development index 35) Fire rating EN 13501-1 E Airtightness EN 12114 tested	g-value humidity variable		1.25 - >125 MN·s/g
variable EN 130 12572 < 0.13 - 13 05 perms	Vapour permeance	ASTM E96-A	0.23 US perms
Surface burning characteristics ASTM E84 Class A (Flame Spread 0; Smoke development index 35) Fire rating EN 13501-1 E Airtightness EN 12114 tested		EN ISO 12572	< 0.13 - 13 US perms
Fire rating EN 13501-1 E Airtightness EN 12114 tested	Hydrosafe value (sd)	DIN 68800-2	2 m
Airtightness EN 12114 tested	Surface burning characteristics	ASTM E84	
	Fire rating	EN 13501-1	E
Airtightness ASTM E2178 ≤ 0.004 cfm/ft²	Airtightness	EN 12114	tested
	Airtightness	ASTM E2178	≤ 0.004 cfm/ft²
Tensile strength MD/CD EN 13859-1 340 N/5 cm / 220 N/5 cm ; 39 lb/in / 25 lb/in	Tensile strength MD/CD		340 N/5 cm / 220 N/5 cm ; 39 lb/in / 25 lb/in
Elongation MD/CD EN 13859-1 15 % / 15 %	Elongation MD/CD		15 % / 15 %
Nail tear resistance MD/CD	Nail tear resistance MD/CD		200 N/5 cm / 200 N/5 cm ; 23 lb/in / 23 lb/in
Durability after artificial ageing ETA-18/1146 passed	Durability after artificial ageing	ETA-18/1146	passed
Temperature resistance permanent -40 °C to 80 °C ; -40 °F to 176 °F	Temperature resistance		permanent -40 °C to 80 °C ; -40 °F to 176 °F
Thermal conductivity 2.3 W/(m·K) ; 16 BTU-in/(h·ft²-F)	Thermal conductivity		2.3 W/(m·K) ; 16 BTU·in/(h·ft²·F)
CE labelling ETA-18/1146 available	CE labelling	ETA-18/1146	available

Application

For use on roofs, walls, ceilings and floors on structures that are open or closed to diffusion on the exterior, e.g. flat/steep roofs and green roofs, after appropriate design calculations.

Advantages

- Best possible protection against damage to structures and mould because this product is humidity-variable with a variation of a factor of over 100
- Test winner in April 2012 with the German product-testing foundation 'Stiftung Warentest'
- Permanent protection: officially tested and certified performance (ETA-18/1146)
- Protected winter building sites thanks to hydrosafe® behaviour
- Can be combined with all fibrous insulation materials (including blown-in insulation)
- Easy to work with: dimensionally stable, no splitting or tear propagation
- Excellent values in the hazardous substance test, has been tested according to the ISO 16000 evaluation scheme

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 the application and construction can be found in the pro clima planning documentation. For queries please call the pro clima technical hotline on +49 (0)6202 278245.

MOLL

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General conditions

Where possible, INTELLO PLUS are installed in such a way that adhesion can be carried out using single-sided adhesive tape on the smooth (printed) side of the sheeting. They can be installed taut and withoutslack 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 bonding. 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 and 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 rush/inrush ventilation is not adequate to quickly evacuate large amounts of construction-related humidity from the building. Use a dryer if necessary.

To prevent condensation, INTELLO should be stuck down so that it is airtight immediately after installing the thermal insulation. 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 bonding 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.

















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