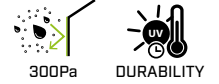


TRASPIR EVO 160

MONOLITHIC BREATHABLE MEMBRANE



MONOLITHIC

The monolithic structure of the membrane guarantees excellent durability over time, thanks to the special polymers used.

REACTION TO FIRE B-s1,d2

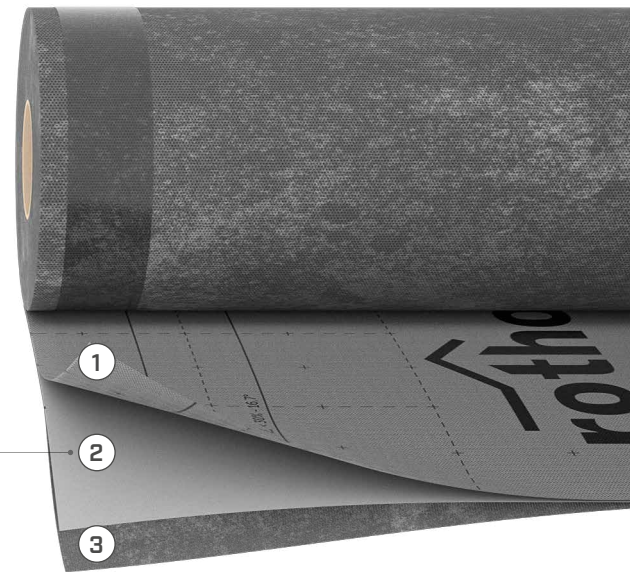
Membrane with above-standard fire performance to ensure utmost reliability and safety.

HIGH UV STABILITY

It passed the artificial ageing test involving exposure to UV light for 1000 hours.

COMPOSITION

- ① top layer: non-woven PP fabric
- ② middle layer: monolithic breathable film
- ③ bottom layer: non-woven PP fabric



CODES AND DIMENSIONS

| CODE | description | tape | H [m] | L [m] | A [m ²] | H [ft] | L [ft] | A [ft ²] | |
|-----------|-----------------------|------|----------|----------|------------------------|-----------|-----------|-------------------------|----|
| TEVO160 | TRASPIR EVO 160 | - | 1,5 | 50 | 75 | 5 | 164 | 807 | 30 |
| TTTEVO160 | TRASPIR EVO 160 TT | TT | 1,5 | 50 | 75 | 5 | 164 | 807 | 30 |
| TEVO16030 | TRASPIR EVO 160 3,0 m | - | 3 | 50 | 150 | 10 | 164 | 1615 | 30 |



SECURE SEALING

The TT version offers quick installation and perfect sealing thanks to the integrated double tape, tested in accordance with ASTM E331 to confirm its effectiveness against water jets at 75 Pa and 300 Pa.

HEAVY RAIN

High resistance against heavy rain during temporary exposure to weather during construction.

TECHNICAL DATA

| Properties | standard | value | USC units |
|------------------------------------|--------------------|---|-------------------------------------|
| Mass per unit area | EN 1849-2 | 160 g/m ² | 0.52 oz/ft ² |
| Thickness | EN 1849-2 | 0,5 mm | 20 mil |
| Water vapour transmission (Sd) | EN 1931 | 0,1 m | 34 US Perm |
| Tensile strength MD/CD | EN 12311-1 | 280/220 N/50 mm | 32/25 lbf/in |
| Elongation MD/CD | EN 12311-1 | 50/60 % | - |
| Resistance to nail tearing MD/CD | EN 12310-1 | 180/200 N | 40/45 lbf |
| Watertightness | EN 1928 | class W1 | - |
| After ageing: | | | |
| - watertightness at 100°C | EN 1297/EN 1928 | class W1 | - |
| - tensile strength MD/CD | EN 1297/EN 12311-1 | 260/200 N/50 mm | 30/23 lbf/in |
| - elongation | EN 1297/EN 12311-1 | 40/50 % | - |
| Reaction to fire | EN 13501-1 | class B-s1,d2 | - |
| Resistance to penetration of air | EN 12114 | < 0,02 m ³ /(m ² h50Pa) | < 0.001 cfm/ft ² at 50Pa |
| Flexibility at low temperatures | EN 1109 | -40 °C | -40 °F |
| Resistance to temperature | - | -40/100 °C | -40/212 °F |
| UV stability ⁽¹⁾ | EN 13859-1/2 | 1000h (8 months) | - |
| Thermal conductivity (λ) | - | 0,4 W/(m·K) | 0.23 BTU/h·ft·°F |
| Specific heat | - | 1800 J/(kg·K) | - |
| Density | - | approx. 370 kg/m ³ | approx. 0.21 oz/in ³ |
| Water vapour resistance factor (μ) | - | approx. 160 | approx. 0,5 MNs/g |
| Joint strength | EN 12317-2 | > 200 N/50 mm | > 23 lbf/in |
| VOC | - | not relevant | - |
| Water column | ISO 811 | > 500 cm | > 197 in |
| Driving rain test | TU Berlin | passed | - |

⁽¹⁾Laboratory ageing test data cannot reproduce unforeseeable causes of the product's degradation, or consider the stresses to which it will be subjected during its service life. To ensure its integrity, as a precautionary measure, exposure to weathering during construction should be limited to a maximum of 8 weeks. According to DTU 31.2 P1-2 (France) 1000h of UV ageing equates to a maximum exposure period of 3 months during the construction phase.

 Waste classification (2014/955/EU): 17 02 03.

| USA and CA Properties | standard | value |
|---|----------------------------------|---|
| Water vapour transmission (dry cup) | ASTM E96/ E96M CAN2-51.32-M77 | 12.3 US Perm 702 ng/(s·m ² ·Pa) |
| Resistance to water penetration at 300 Pa on wall | ASTM E331 | compliant |
| Airtightness | ASTM E2178 | compliant |
| Airtightness (before and after ageing) | CAN/ULC-S741 | compliant |
| Sheathing, Membrane, Breather Type | CAN2-51.32-M77 | compliant |
| Pliability | CAN2-51.32-M77 | passed |
| Total heat release rate | ASTM E1354 | 5,4 MJ/m ² |
| Surface burning characteristics | ASTM E84 | class 1 or class A |
| Flame spread index (FSI) | ASTM E84 | 0 |
| Smoke Developed Index (SDI) | ASTM E84 | 30 |
| Evaluation of fire propagation | NFPA 285 | approved |

| AUS and NZ Properties | standard | value |
|---------------------------------|----------------------------|--------------------|
| Resistance to water penetration | AS/NZ 4201.4 | Water barrier |
| Flammability index | AS 1530.2 | < 5 ⁽²⁾ |
| Duty classification | AS/NZS 4200.1 | Light wall |
| Tensile strength MD/CD | AS 1301.448s | 4,3/3,6 kN/m |
| Edge tearing resistance MD/CD | AS/NZS 4200.0 | 221/181 N |
| Burst strength | AS 2001.2.19/AS/NZS 4200.1 | 357 N |
| Dimensional stability | AS/NZS 4201.3 | <0.5% |


⁽²⁾ This product is suitable for use in BAL regions 12.5 to 40 in accordance with AS 3959. Wherever non-combustible material is required by the NCC it should be noted that this product is less than 1mm thick and has a flammability index of less than 5.




ARTIFICIAL AGEING AND WATERTIGHTNESS

As part of the MEZeroE project, the TRASPIR EVO 160 + SMART BAND system was subjected to artificial ageing caused by exposure to UV rays and heat.

TRASPIR 160 has been tested in accordance with ASTM E331 with water jets at 75 Pa and 300 Pa.

| | | |
|---|-----------------|-------------------|
|  DURABILITY | Type of ageing: | 5000h UV to 50°C |
| | | + 90 days at 70°C |

| WATER JET PRESSURE | OUTCOME | NOTES AND REMARKS |
|---|---------|-------------------|
|  300 Pa | passed | no infiltration |