TRASPIR EVO 160

MONOLITHIC BREATHABLE MEMBRANE

LCA

EN 13859-1/2

AS1530.2 index 1 | B-s1,d2 | ASTM E84 class 1 class A | 3,0 m

AUS AS/NZS 4200.1 Class 4 | USA IRC vp | A Önorm B4119 UD Typ I | CH SIA 232 UD (wU) | D ZVDH USB-A UDB-A | F DTU 31.2 E1 Sd1 TR1 E600 Jf C2 | I UNI 11470 B/R2

300Pa | DURABILITY

NFPA285 TESTED | AUS/AS 4200.1 PASS | CAN2-51.32-M77 PASS | CAN/ULC-S741 PASS | ASTM TESTED

MONOLITHIC

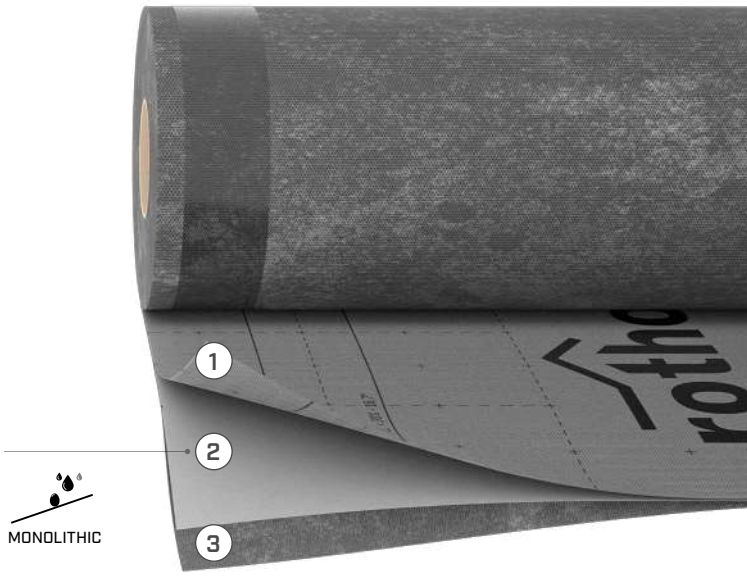
The monolithic structure of the membrane guarantees excellent durability over time, thanks to the special polymers used.

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 [m²]	*H [ft]*	*L [ft]*	*A [ft²]*	
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/m²	*0.52 oz/ft²*
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 m³/(m²h50Pa)	*< 0.001 cfm/ft² 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/m³	*approx. 0.21 oz/in³*
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·m²·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/m²
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.

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

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

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