

MORTERPLAS GARDEN MIN

MORTERPLAS GARDEN MIN Membrane with polyester felt (FP) reinforcement and mastic with anti-root treatment.

ADVANTAGES

The stabilized and reinforced non-woven polyester felt (FP) reinforcement confers the best mechanical properties to the membrane:

- · High tensile strength.
- · Maximum puncturing resistance (static and dynamic).
- · High tear resistance.
- · Good dimensional stability.
- · The APP plastomeric mastic, known for its robustness and excellent low-temperature flexibility, provides the membrane with high resistance to atmospheric agents and the maximum quarantee of durability.
- The membrane has excellent resistance to high temperatures, with allows it to be used in hot climates because it does not soften under high temperatures.
- \cdot Anti-root treatment that protects the waterproofing from roots, not rhizomes that produce bamboo, couch grass (Elymus repens)...etc.



APPLICATION

- · MORTERPLAS GARDEN MIN is applied in single-layer systems on green roofs or garden roofs with varying pitches.
- It can be applied as the top layer in multi-layer systems
- · It is especially indicated for low-maintenance, light ecological roofs.
- · It is applied on green roofs, where maximum use of rainwater and minimum external maintenance is required.
- · It is applied in garden areas where details like upstands or vertical elements are exposed.
- · It can be applied as a membrane to ensure the watertightness of underground structures

Finishing membrane in single layer systems for green roofs

REGULATIONS

- · In accordance with the EN 13707 standard. Certified with CE marking No. 0099/CPR/A85/0087
- · Voluntary certification of the product with AENOR seal according to the same European standard.
- · With DIT No. 516 Inverted roof systems "TEXLOSA® ROOFING SYSTEMS."
- · With DIT No. 562/10 MORTERPLAS/MOPLAS ZERO slope
- · With DIT No. 579/11 MORTERPLAS VEHICULAR TRAFFIC
- · With DIT No. 580/11 UNDERGROUND STRUCTURES MORTERPLAS
- · Quality System in accordance with ISO:9001

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INSTALLATION

- \cdot SUPPORT: The surface must be dry, firm, even, clean and free of loose materials.
- \cdot It can be applied completely adhered, partially adhered or floating. \cdot To adhere the membrane to the support, the support is primed with EMUFAL I. Once dry, use flame to adhere the membrane.
- · The flame is applied as uniformly as possible (the greater the heat, the greater the retraction) along the width of the membrane without reaching the overlap, which will be done later, since it is important that the temperature be the same in every area. The flame should be applied until the anti-adherent film pore opens.
- · The membranes are installed in such a way that no more than three membranes overlap at the same point.
- · Overlaps are flame-bonded, with a longitudinal overlap of at least 8 cm and a transversal overlap of at least 10 cm, first removing the minerals from the surface to ensure adherence.
- · In the two-layer solution, the top membrane must be completely adhered to the bottom membrane, and it must be placed in the same direction so that the overlap lays approximately in the middle of the bottom membrane.
- · Installation and measurements will be conducted in accordance with regulations of the UNE 104401 standard.

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PACKAGING AND STORAGE

	MORTERPLAS GARDEN MIN	
Kg/m²	5 -5/+10%	
Length (m)	8	
Width (m)	1	
m2/roll	8	
m2/pallet	200	
Finishing *	Green slates	
Storage	Upright on pallet. Store in the original packaging in a dry and cool place, protected against weathering.	

^{*}NOTE: Self protected membranes are finished with natural minerals (slates or granule), they could appear with different coloured tones in sheets from different batch. It must be aware for the orders on a same roof, specially for refurbishment. This feect will be soon minimized once exposed on roof.

TECHNICAL PROPERTIES

CHARACTERISTICS Test Method Unit MORTERPLAS GARDEN MIN External fire behaviour ENV 1187 - Broof(t1) Fire reaction EN 13501-1:2002 (EN ISO 11925-2) - E Watertightness EN 1928:2000 (B) - Pass (10 kPa) Maximum tensile strength (L x T) EN 12311-1 N/50 mm 700 ± 200 450 ± 150 Maximum tensile strength (L x T) EN 12311-1 % 45 ± 15 45 ± 15 Blongation (L x T) EN 12311-1 % 45 ± 15 45 ± 15 Root penetration resistance EN 13948 - Pass / Pasa Static load resistance EN 12730 (A) kg ≥ 15 Impact resistance EN 12691:2006 mm ≥ 1000 Tear strength (nail) (L x T) EN 12310-1 N NE Joint peel resistance EN 12316-1 N/50 mm NE Joint shear resistance (L x T) EN 12317-1 N/50 mm 450 x 450 ± 150 Artificial ageing by long-term exposure to high temperature EN 1297 EN 1850-1 NE Artificial ageing by long term exposure to the com				
Fire reaction EN 13501-1:2002 (EN ISO 11925-2) Watertightness EN 1928:2000 (B) - Pass (10 kPa) Maximum tensile strength (L x EN 12311-1 N/50 mm 700 ± 200 450 ± 150 T) Elongation (L x T) EN 12311-1 % 45 ± 15 45 ± 15 Root penetration resistance EN 13948 - Pass / Pasa Static load resistance EN 12730 (A) kg ≥ 15 Impact resistance EN 12691:2006 mm ≥ 1000 Tear strength (nail) (L x T) Joint peel resistance EN 12310-1 N NE Joint shear resistance (L x T) Artificial ageing by long-term exposure to high temperature and water Flexibility at low temperature EN 1109 °C EN 1109 °C E Sas (10 kPa) Pass (10 kPa) Flexibility at low temperature EN 12311-1 N/50 mm NE EN 1250-1 EN 1297 EN 1850-1 EN 1850-1 EN 1850-1 EN 1297 EN 1109 °C ≤ -15	CHARACTERISTICS	Test Method	Unit	MORTERPLAS GARDEN MIN
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Maximum tensile strength (L x T)EN 12311-1N/50 mm $700 \pm 200 \ 450 \pm 150$ Elongation (L x T)EN 12311-1% $45 \pm 15 \ 45 \pm 15$ Root penetration resistanceEN 13948-Pass / PasaStatic load resistanceEN 12730 (A)kg≥ 15Impact resistanceEN 12691:2006mm≥ 1000Tear strength (nail) (L x T)EN 12310-1NNEJoint peel resistanceEN 12316-1N/50 mmNEJoint shear resistance (L x T)EN 12317-1N/50 mm $450 \times 450 \pm 150$ Artificial ageing by long-term exposure to high temperatureEN 1296 12 sem/weeksEN 1109 / 1110 $-5 \pm 5^{\circ}$ C / ≤ 2 mm (100 $\pm 10^{\circ}$ C)Artificial ageing by long term exposure to the combination of UV radiation, high temperature and waterEN 1297EN 1850-1NEFlexibility at low temperatureEN 1109 $^{\circ}$ C≤ -15	Fire reaction	,	-	E
T) Elongation (L x T) Elongation (L x T) EN 12311-1 Root penetration resistance EN 13948 - Pass / Pasa Static load resistance EN 12730 (A) kg ≥ 15 Impact resistance EN 12691:2006 mm ≥ 1000 Tear strength (nail) (L x T) EN 12310-1 N N NE Joint peel resistance EN 12316-1 N/50 mm NE Joint shear resistance (L x T) Artificial ageing by long-term exposure to high temperature exposure to the combination of UV radiation, high temperature and water Flexibility at low temperature EN 1109 EN 1201-1 RN 45 ± 15 45 ± 15 Pass / Pasa NM NE NE EN 12700 EN 12810-1 N NE STOC SE - 15	Watertightness	EN 1928:2000 (B)	-	Pass (10 kPa)
Root penetration resistance		EN 12311-1	N/50 mm	700 ± 200 450 ± 150
Static load resistance EN 12730 (A) kg ≥ 15 Impact resistance EN 12691:2006 mm ≥ 1000 Tear strength (nail) (L x T) EN 12310-1 N NE Joint peel resistance EN 12316-1 N/50 mm NE Joint shear resistance (L x T) EN 12317-1 N/50 mm Attificial ageing by long-term exposure to high temperature EN 1296 12 sem/weeks EN 1109 / 1110 $\pm 0.5 \pm 0.5$ C / ≤ 2 mm (100 exposure to the combination of UV radiation, high temperature and water Flexibility at low temperature EN 1109 ± 0.5 EN 1297 ± 0.5 EN 1298 ± 0.5 E	Elongation (L x T)	EN 12311-1	%	45 ± 15 45 ± 15
Impact resistance EN 12691:2006 mm ≥ 1000 Tear strength (nail) (L x T) EN 12310-1 N NE Joint peel resistance EN 12316-1 N/50 mm NE Joint shear resistance (L x T) EN 12317-1 N/50 mm 450 x 450 ± 150 Artificial ageing by long-term exposure to high temperature and water EN 1296 12 sem/weeks EN 1109 / 1110 -5 ±5 °C / ≤ 2 mm (100 ± 10 °C) EN 1297 EN 1850-1 NE EV radiation, high temperature and water EN 1109 °C ≤ -15	Root penetration resistance	EN 13948	-	Pass / Pasa
Tear strength (nail) (L x T) EN 12310-1 N NE Joint peel resistance EN 12316-1 N/50 mm NE Joint shear resistance (L x T) EN 12317-1 N/50 mm 450 x 450 ± 150 Artificial ageing by long-term exposure to high temperature EN 1296 12 sem/weeks EN 1109 / 1110 $-5 \pm 5^{\circ}$ C / ≤ 2 mm (100 ± 10 $^{\circ}$ C) Artificial ageing by long term exposure to the combination of UV radiation, high temperature and water Flexibility at low temperature EN 1109 $^{\circ}$ C ≤ -15	Static load resistance	EN 12730 (A)	kg	≥ 15
Joint peel resistance EN 12316-1 N/50 mm NE Joint shear resistance (L x T) EN 12317-1 N/50 mm $450 \times 450 \pm 150$ Artificial ageing by long-term exposure to high temperature EN 1297 EN 1850-1 NE Artificial ageing by long term exposure to the combination of UV radiation, high temperature and water Flexibility at low temperature EN 1109 ${}^{\circ}$ C ≤ -15	Impact resistance	EN 12691:2006	mm	≥ 1000
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Artificial ageing by long-term exposure to high temperature Artificial ageing by long term exposure to the combination of UV radiation, high temperature and water EN 1296 12 sem/weeks EN 1109 / 1110 -5 ±5 °C / ≤ 2 mm (100 ±10 °C) EN 1850-1 NE EN 1850-1 SEN 1850-1 NE EN 1850-1 SEN 1850-1	Joint peel resistance	EN 12316-1	N/50 mm	NE
exposure to high temperature Artificial ageing by long term exposure to the combination of UV radiation, high temperature and water EN 1297 EN 1850-1 NE exposure to the combination of UV radiation, high temperature and water EN 1109 ©C ≤ -15	Joint shear resistance (L x T)	EN 12317-1	N/50 mm	450 x 450 ± 150
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	exposure to the combination of UV radiation, high temperature	EN 1297	EN 1850-1	NE
II I I I	Flexibility at low temperature	EN 1109	₅C	≤ -15
Hazardous substances PND	Hazardous substances			PND

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OTHER FEATURES

OTHER CHARACTERISTICS	Test Method	Unit	Value
Visible defects	EN 1850-1	-	Pass
Straightness	EN 1848-1	-	Pass (<20 mm/10 m)
Compound per area unit	EN 1849-1	kg/m²	5,00 -5/+10%
Thickness	EN 1849-1	mm	-
Thickness in overlap	EN 1849-1	mm	-
Watertightness after stretching at low temperature	EN 13897	%	
Dimensional stability	EN 1107-1	%	≤ 0,4
Form stability under cyclic temperature change	EN 1108	mm	NE
High temperature flow resistance	EN 1110	^o C	≥ 120
Granule adhesion	EN 12039	%	20 (-20/+10) %
Water vapour transmission properties	EN 1931	μ	20000

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