

MATIZOL ELITE TECH

LIQUID ROOF MEMBRANE FOR USE IN DIFFICULT CONDITIONS



1. PRODUCT DESCRIPTION

Hybrid, waterproof membrane for flat roofs, terraces and balconies, garages and car parks. Thanks to its high durability and resistance to pedestrian and vehicular traffic (P4), it can be used in places intended for intensive use. The unique combination of resins allows the coating to be applied under extreme conditions, at temperatures from 0°C to +45°C, and provides resistance to ponding water. Thanks to its high vapour permeability (SD 1), it can be applied on wet and damp substrates and on surfaces with moisture. High adhesion means that there is no need to use primer, and its self-levelling properties make it simple and easy to apply.

MATIZOL ELITE TECH has nearly 100% solid content, so the applied thickness of the coating does not change during drying. Thanks to its quick drying, it is resistant to rain after just 2 hours from application (at a temperature of 20°C).



2. BENEFITS

- DURABILITY 15 YEARS
- APPLICATION FROM 0°C TO +45°C
- APPLICATION ON WET SUBSTRATE
- HIGH RESISTANCE TO TEAR & WEAR
- WHITE VERSION OF PRODUCT HAS SOLAR REFLECTANCE INDEX SRI: 101,7

3. APPLICATION AREA

MATIZOL ELITE TECH is designed for application on flat roofs, both new and refurbished. Due to its high resistance to movement and point loads, it can also be used for waterproofing and finishing: parking areas, garages, balconies, and terraces. Its vapor-permeable properties make it ideal for waterproofing fresh concrete (after removing cement laitance) and for renovating substrates with residual moisture.

4. SUBSTRATES

- Concrete and cement screeds
- Bituminous membranes
- Ceramic tiles
- Cement tiles
- Stonewear
- Coated metal*

*For metal surfaces, always perform a test application to verify final adhesion

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5. SUBSTRATE PREPERATION

CONCRETE SUBSTRATE

Due to the very high adhesive parameters, the concrete substrate must be load-bearing and have adequate compressive strength (min. 25 MPa), with a pull-off test result of ≥ 1.5 MPa. The substrate must be clean and free from substances that impair adhesion, such as dust, cement laitance, oils, coatings, surface treatment agents, and loose particles.

Fill cavities, voids, and cracks (as outlined in section 6. APPLICATION– Expansion Joints). Weak areas of the substrate should be removed during surface preparation. The surface can be prepared using abrasive blasting or milling to remove cement laitance. Larger irregularities should be removed by grinding. The substrate must be thoroughly vacuumed with an industrial vacuum cleaner. Repairs of the substrate, including filling voids, cavities, and uneven areas, should be done using appropriate mineral materials. For any questions or concerns, please contact the Technical Department.

BITUMINOUS SUBSTRATE

The surface of the bituminous felt must be dry and free from all contaminants. Loose elements, including granules, moss, and lichens, should be removed from the roof. Delamination must be adhered, and cracks and voids should be filled using a repair compound, such as **MATIZOL EVOMER FAST-FIX**. Larger irregularities should be mechanically removed to ensure an even distribution of the coating.

CERAMIC TILE AND PORCELAIN STONEWARE SUBSTRATE

Clean and degrease the substrate, and remove any loose elements. If there are signs of tile delamination, they should be re-adhered to provide a stable substrate. If a level surface is desired, fill depressions (up to a depth of 1 mm) where joints are present using **MATIZOL ELITE TIXO** (300 g/m²) with a smooth trowel. Wait at least 8 hours at +20°C before applying the first layer of **MATIZOL ELITE TECH**.

6. APPLICATION

As a first step, apply system accessories such as tapes and collars (as per their specific instructions) to all treatments, transitions between vertical & horizontal surfaces, and expansion joints and seams. Then, protect all these areas with the thixotropic membrane **MATIZOL ELITE TIXO**, as shown in diagram 1.

CORNERS AND TRANSITIONS TO VERTICAL SURFACES:

In corners and transitions to vertical surfaces, apply the self-adhesive corner tape **MATIZOL CORNER TAPE PP-BUTYL**.

SEALING PENETRATION THROUGH WATERPROOFING:

For waterproofing and sealing around penetrations such as drains, vent pipes, other installation pass-throughs, or around hydraulic pipes and drains, first create a "crown" using **MATIZOL CORNER TAPE PP-BUTYL**. Then apply a properly cut **MATIZOL COLLAR PP-BUTYL**, a self-adhesive butyl sealing collar, on top of the crown.

EXPANSION JOINTS:

Treatment of cracks and expansion joints up to 1 cm wide:

When applying coatings in areas with cracks, gaps, or expansion joints, secure gaps up to 1 cm wide with **MATIZOL JOINT TAPE PV-ELAST** (waterproof, elastic tape made from elastomer and polyester fabric) as described below:

Apply **MATIZOL ELITE TECH** along the crack, right at its edge, and unroll **MATIZOL JOINT TAPE PV-ELAST** over the crack, ensuring the entire surface under the perforated part of the tape is uniformly covered with **MATIZOL ELITE TECH**. Once the coating is completely dry, proceed with the full-surface application of the first layer.

Treatment of cracks and expansion joints wider than 1 cm:

To seal gaps wider than 1 cm, the following system should be used:

For new cracks or renovation of existing ones, insert a BACKER ROD into the joint to a depth slightly greater than its diameter. Ideally, the top of the rod should be at a depth equal to half its diameter. Then, fill the space above the rod with polyurethane sealant. After the sealant has fully cured, apply **MATIZOL JOINT TAPE PV-ELAST** according to the instructions for joints up to 1 cm wide.

COATING APPLICATION:

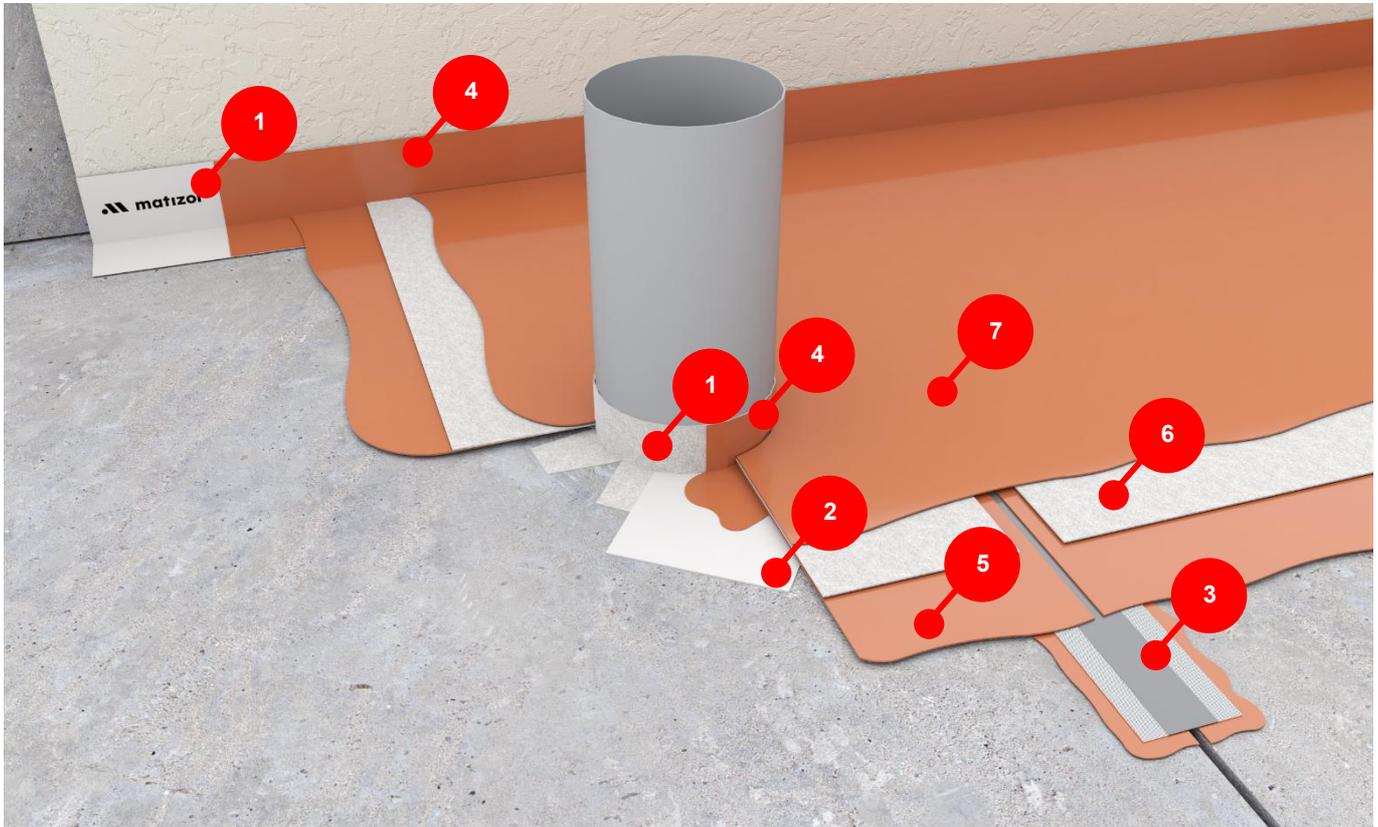
The product is ready for use and does not require priming. To ensure proper pigmentation throughout the product, mix it thoroughly using a mechanical mixer, keeping the speed low to prevent air from being introduced into the product. Apply **MATIZOL ELITE TECH** using a short-nap roller, a flat brush, a metal trowel, or an airless spray gun, such as the Graco Mark V air-assisted sprayer with a G40 spray gun and a 0.21" nozzle. The working pressure should be around 180 bar, but it must always be adjusted optimally to suit the prevailing weather conditions. For more information, please contact the SELENA Technical Department.

After thoroughly cleaning the surface as described in section 5, SUBSTRATE PREPARATION, apply **MATIZOL ELITE TECH** at a rate of 900-1000 g/m², depending on substrate unevenness. During application, we recommend cross-distributing the product (in both horizontal and vertical directions) to achieve an evenly applied layer. Immediately after application, embed the **MATIZOL MAT PP 90 g/m²** using a spiked roller or smooth trowel, avoiding excessive pressure. The fabric will bond with the **MATIZOL ELITE TECH** coating in a short time. Wait the required time (refer to the temperature table below), and then apply the second layer of **MATIZOL ELITE TECH** in the necessary amount to achieve a total consumption of 1.7–1.9 kg/m² for the concrete substrates and 2.1 – 2.3 kg/m² for bituminous felts. During application, cross-distribute the product to ensure even coverage. Immediately after applying the second layer, use a spiked roller to vent the coating and avoid air bubbles. When applying over modified bitumen membranes, wait at least 180 days from their installation.

When applying to degraded substrates, whether concrete or bituminous, the use of **MATIZOL MAT PP 90 g/m²** fabric is mandatory.

CONSUMPTION in two layers: 1.7–1.9 kg/m² for concrete and 2.1–2.3 kg/m² for bitumen felts.

Illustration 1. Application and work on the details in the **MATIZOL ELITE TECH** system



1. MATIZOL CORNER TAPE PP-BUTYL
2. MATIZOL COLLAR PP-BUTYL
3. MATIZOL JOINT TAPE PV-ELAST
4. MATIZOL ELITE TIXO
5. First layer of MATIZOL ELITE TECH
6. MATIZOL MAT PP 90g /m²
7. Second layer MATIZOL ELITE TECH

CURING TIME TABLE:

Application temperature	Application of second layer	Usable (after two layers)	Possibility of object placing (after two layers)
20°C	after 12 h	24 h	36 h
15°C	after 12 h	24 h	36 h
10°C	after 18 h	24 h	48 h
5°C	after 24 h	36 h	60 h
0°C	after 24 h	48 h	72 h

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RAINPROOF TIME CHART

Application Temperature	Rain resistance
20°C	2 h
15°C	2,5 h
10°C	3 h
5°C	4 h
0°C	5 h

WARNING

Do not use the product if its packaging is damaged.

The product is ready to use, so DO NOT dilute it with water or solvents.

Use only clean and dry tools. Close packages immediately after use. High or low storage temperatures can alter the viscosity of the product. For optimal application, we recommend storing **MATIZOL ELITE TECH** at least 24 hours before use at temperatures close to +20°C.

TOOL MAINTENANCE

Cleaning tools with denatured alcohol, ethyl alcohol, if the product is still wet. If the material has set, clean the tools mechanically.

SURFACE CLEANING

With time and use, if cleaning the surface of **MATIZOL ELITE TECH** is needed, use a solution of water and denatured alcohol in a 1:1 ratio.

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7. TECHNICAL PARAMETERS

Appearance	Liquid paste
Colour	White, Grey, Red, Green
Specific Gravity at 20°C (g/cm ³)	1.40 ± 0.05
Dry content (%)	98 ± 1
Brookfield viscosity at 20°C (Cps)	5.500 ± 200
Operating temperature	-30°C- + 80°C
Weather resistance	Excellent
UV resistance	Excellent
Flexibility at low temperature (-26°C)	No cracks
Tensile Strength (ASTM D 2370)	1100 PSI – 7.5 N/mm ²
Elongation at Break (ASTM D 2370)	82%
Resistance to negative pressure	4 bars
Resistance to positive pressure	6 bars
Water absorption after 24 h (%)	<0.1
Water absorption after 7 days (%)	<0.5
Water vapour permeability class (UNI EN 1931)	SD 1 (>0.5 <2)
Abrasion resistance (TABER) CS17 grinder, 1000 g load per 1000 revolutions	Weight loss (%)= 0.06 (average walkability)
Slip resistance (UNI EN 13036-4 pendulum test)	PVT Value 58
Hail resistance (UNI EN 13583)	(Impact Speed: 22 m/s at 0°C)
Rigid substrate	No cracks
Soft substrate	No cracks
Application Temperatures	from 0°C to +45°C
Reaction to fire (UNI EN 13501-1)	C _{fl} – s1

ADHESION TO THE SUBSTRATE (UNI 1542):

Adhesion to the substrate (N/mm ²) after 14 days	
CONCRETE ¹	≥ 2.76
TILES ²	≥ 1.28
Adhesion to the substrate (N/mm ²) after 14 days of immersion in water	
CONCRETE ¹	≥ 2.20
TILES ²	≥ 1.08
Adhesion to substrate (N/mm ²) after 14 days of immersion in saltwater	
CONCRETE ¹	≥ 2.00
TILES ²	≥ 1.20

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Adhesion to the substrate (N/mm ²) after 14 days of immersion in water with pH 2	
CONCRETE ¹	≥ 1.84
TILES ²	≥ 1.22
Adhesion to METAL	≥ 2

Remarks: ¹ Concrete Detachment ² Tile Crack

EMISSION OF VOLATILE ORGANIC COMPOUNDS

Parameter	Maximum permissible concentration (µ/m ³)
TVOC after 3 days	≤ 750
TVOC after 28 days	≤ 60

Test performed by EUROFINs according to EN 16516, ISO 16000-3-6-9-11 and ASTM D5116-10, Test Report No. 392-2018-00451601_G_EN_02

Volume	number of packages per pallet
5 kg	120
10 kg	48
20 kg	36

8. STORAGE & TRANSPORTATION

Store for up to 18 months in the original sealed containers. Containers should be stored in an upright position, away from sources of fire and heating elements, in conditions where they are protected from direct sunlight and weather influences. Cannot be stored in sub-zero temperatures. Permissible transport and storage temperature from +5 to 35°C. It is not frost hardy.

9. HEALTH AND SAFETY WARNINGS AND RECOMMENDATIONS

Detailed information can be found in the manufacturer's Safety Data Sheet. The above data, recommendations and guidance are based on our best knowledge, research and experience and have been given in good faith in accordance with the policies of our company and our suppliers. The proposed procedures are considered common, but each user of this material should make sure in all possible ways, including checking the final product under appropriate conditions, that the materials supplied are suitable for achieving the intended purposes. Neither the Company nor its authorised agents can be held liable for any losses incurred as a result of the incorrect or misuse of its materials.

ECOLOGY

Do not dispose of the product and/or empty containers in the environment. Refer to the latest safety data sheet for more information on disposal procedures.

10. PRODUCER

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