MATIZOL ELITE DECK

ANTI-SLIP FINISHING LAYER FOR TERRACES AND BALCONIES

1. PRODUCT DESCRIPTION

Hybrid, quartz sand-enriched, waterproof finishing membrane for terraces and balconies. **MATIZOL ELITE DECK** is the top layer in the **MATIZOL ELITE TECH** system, designed for achieving a non-slip surface finish. Thanks to its unique combination of resins, the coating can withstand heavy use (P4) and be applied at temperatures ranging from 0°C to +45°C. **MATIZOL ELITE DECK** can be applied to wet substrates without the need for a primer layer. The coating is also highly vapor-permeable (SD1), allowing moisture trapped in the substrate to escape.

2. BENEFITS

- DURABILITY 15 YEARS
- APPLICATION FROM 0ºC TO +45ºC
- APPLICATION ON WET SUBSTRATE
- HIGHEST TRAFFIC & LOAD RESISTANCE (P4)

3. APPLICATION AREA

MATIZOL ELITE DECK is especially recommended for waterproofing and protecting floors in areas exposed to heavy mechanical loads, such as garages, parking lots, warehouses, and industrial floors. It can also be applied to substrates such as ceramic tiles, porcelain stoneware, or other flooring with persistent moisture issues, as well as not fully cured cement screeds (7 days at +15°C). Once fully cured, the coating is resistant to heavy vehicular traffic. Its special formula ensures adhesion even on asphalt (with a minimum mechanical resistance of 0.5 N/mm²).

4. SUBSTRATES

- concrete and cement screeds
- bituminous membranes
- Matizol Elite Tech coating
- cement tiles
- porcelain stoneware and ceramic tiles
- metal*

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

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5. SUBSTRATE PREPARATION

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.

SUBSTRATE PREPARATION

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** or **MATIZOL ELITE DECK.**

If there are oil stains on the substrate, proceed as follows: mechanically remove about 2 mm of the substrate's surface layer where the oil is present, and remove all dust (using a vacuum cleaner). Immediately apply an epoxy adhesion promoter with a roller or flat brush, and sprinkle quartz sand sized 01-05 (400-500 g/m²). Leave the primer to cure for at least 24 hours before applying the coating.
Before use, mix the product (manually or with a low-speed mixer) until a homogeneous mixture is obtained.

In the first step, apply system accessories such as tapes and collars to all details, transitions between vertical and horizontal surfaces, and expansion joints and seams (according to their specific instructions), and then protect them with **MATIZOL ELITE TIXO** thixotropic membrane, as shown in Figure 1.

6. APPLICATION

SECURING THE DETAILS

CORNERS AND TRANSITIONS TO VERTICAL SURFACES:

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

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** and bond it with the element. 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:

For coating applications in areas with cracks, joints, or expansion joints, secure joints up to 1 cm wide using **MATIZOL JOINT TAPE PV-ELAST** (a waterproof, elastic tape made of elastomer and polyester fabric) as described below:
Apply **MATIZOL ELITE DECK** or **MATIZOL ELITE TECH** along the joint, right at its edge, and then lay the **MATIZOL JOINT TAPE PV-ELAST** over the joint, ensuring that the entire surface under the perforated part of the tape is uniformly covered with **MATIZOL ELITE DECK** or **MATIZOL ELITE TECH.** After the coating has completely dried, proceed with the full surface application of the first layer.

Treatment of cracks and expansion joints wider than 1 cm:

To seal joints wider than 1 cm, use the following system:
For new joints or renovating existing ones, insert a BACKER ROD into the joint to a depth slightly greater than the rod's diameter. Ideally, the top of the rod should be at a depth equal to its radius (i.e., half its diameter). Then, fill the space above the rod with polyurethane sealant. Once the sealant is fully dry, apply **MATIZOL JOINT TAPE PV-ELAST** according to the instructions for "treatment of cracks and expansion joints up to 1 cm wide."

APPLICATION AS COMPLETE WATERPROOFING SYSTEM:

MATIZOL ELITE DECK is ready for use and does not require priming. To ensure proper pigmentation throughout the product and distribution of the quartz sand, mix it thoroughly using a mechanical mixer, keeping the speed low to prevent air from being introduced into the product. Apply product 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.

Apply the first layer in a quantity of 350-400 g/m² and wait the time indicated in the temperature chart. Then, apply the second layer in quantity of 1.1-1.2 kg/m², and immediately use a spiked roller to release any air from the coating and prevent the formation of air bubbles.

Apply third, anti-slip finish, layer using a short-nap roller in quantity of 300 g/m². Remember to apply in both directions: along and across. This process ensures an evenly distributed layer with the characteristic rough texture of the finishing layer.

APPLICATION AS FINISH LAYER OF MATIZOL ELITE TECH SYSTEM

When **MATIZOL ELITE DECK** is used as a top layer for **MATIZOL ELITE TECH**, apply it on the dry, clean surface covered with **MATIZOL ELITE TECH** in a quantity of 300 g/m². For details please check **MATIZOL ELITE TECH** Technical Data Sheet.

APPLICATION ON SURFACES SUBJECT TO MECHANICAL STRESSES:

For applications on surfaces exposed to higher mechanical stresses, such as tiled floors, follow the procedure described below:
After thoroughly cleaning the surface intended for application, fill the volume of the grouts with **MATIZOL ELITE TIXO** (300 g/m²), using a smooth trowel. After at least 8 hours at +20°C (curing times in other temperatures can be found in the product's Technical Data Sheet), apply **MATIZOL ELITE TECH** or **MATIZOL ELITE DECK** in a quantity of 700-900 g/m², depending on the substrate's porosity. During application, cross-apply the layers to ensure even distribution of the product across the entire surface.

Immediately after application, embed the **MATIZOL MAT PP 90 g/m²** reinforcing fabric using a spiked roller or a smooth trowel, avoiding excessive pressure. Shortly after, the coating will bond with the reinforcing fabric. Wait the necessary time before applying the second layer (see temperature chart), then apply **MATIZOL ELITE TECH** or **MATIZOL ELITE DECK** in a quantity of 600-800 g/m². As with the first layer, cross-apply the second layer to ensure even coverage and use a spiked roller to release any air from the coating and prevent the formation of air bubbles.

After the time indicated in the temperature chart, apply the final finishing layer of **MATIZOL ELITE DECK** with a short-nap roller, in a quantity of 300 g/m², applying it both lengthwise and crosswise.

Curing temperature table – application without reinforcement

Ambient temperature	Second layer application time	Finishing layer application possible after	Time to use with pedestrian traffic load after application of the last coating	Time to use with circular load after last coating application
20°C	5 h	10 h	24 h	48 h
15°C	5 h	14 h	24 h	48 h
10°C	6 h	24 h	24 h	72 h
5°C	7 h	36 h	48 h	72 h
0°C	8 h	48 h	48 h	72 h

Full mechanical resistance is obtained 7 days after the application of the last layer.

After application, the product becomes rainproof, although it is not fully cured, according to the provided rain protection time table.

Table for obtaining the resistance of the coating to rain depending on the ambient temperature

+20°C	2 h
+15°C	2 h 30 min.
+10°C	3 h
+5°C	4 h
0°C	5 h

TOTAL CONSUMPTION AS THE FINISH LAYER
0,3 kg/m^2

TOTAL CONSUMPTION OF WATERPROOFING SYSTEM
1,7 – 1,9 kg/m^2 without reinforcement
1,8 – 1,9 kg/m^2 with Matizol Mat PP reinforcement non-woven fabric 90g/m^2

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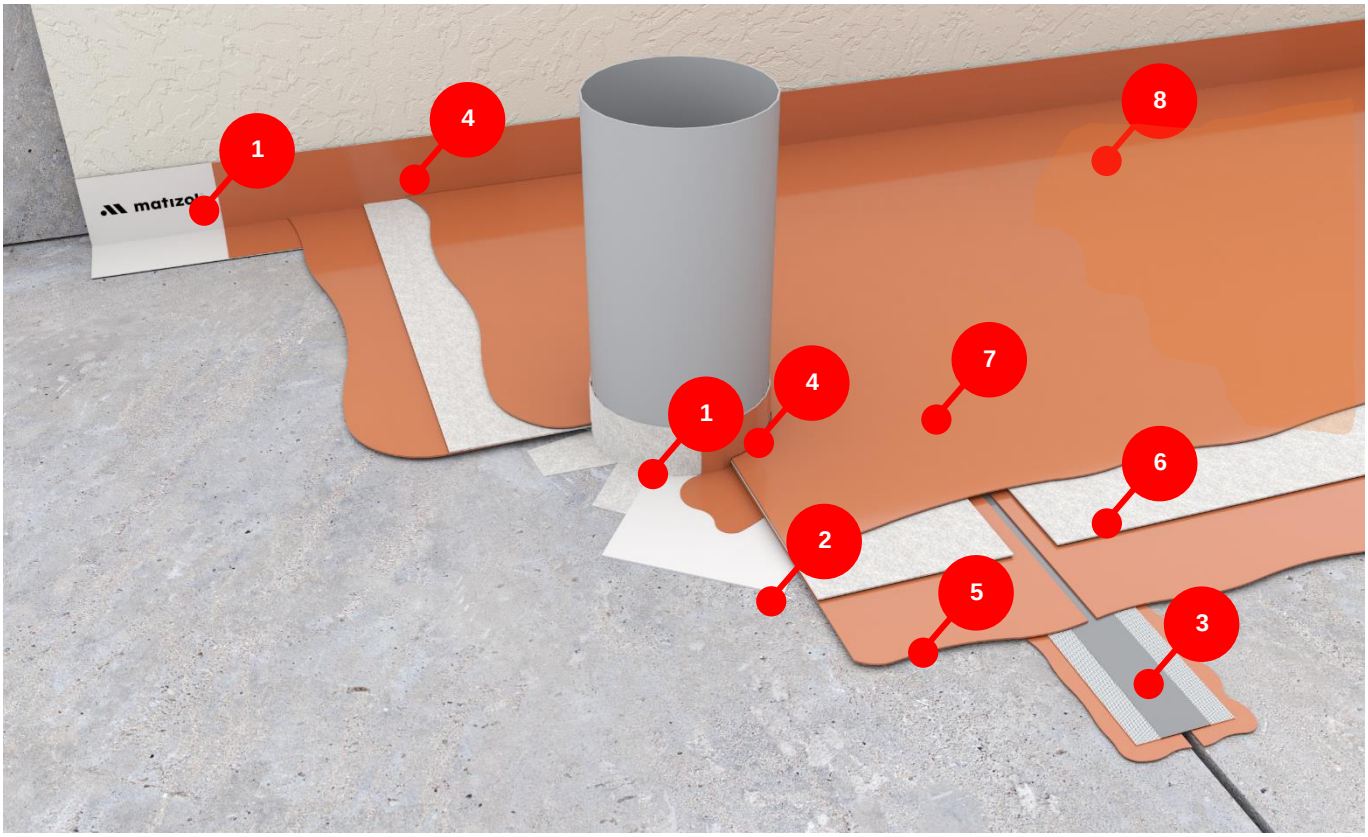
Illustration 1. Application and machining of details in the MATIZOL ELITE DECK system



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

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 the packaging immediately after use. Extreme storage temperatures may change the viscosity of the product. For optimal application, we recommend storing **MATIZOL ELITE DECK** at temperatures close to +20°C for at least 24 hours before use.

TOOL MAINTENANCE

Clean tools with denatured alcohol or ethanol while the product is still wet. If the material has hardened, clean the tools mechanically.

SURFACE CLEANING

If surface cleaning of **MATIZOL ELITE DECK** is necessary over time and use, clean using a solution of water and denatured alcohol in a 1:1 ratio.

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7. LOGISTIC DATA

Volume	Pails per pallet
5 kg	120
10 kg	48
20 kg	36

8. TECHNICAL PARAMETERS

Appearance	Liquid paste
Colour	grey, red, green, white, yellow, blue
Specific Gravity at 20°C (g/cm³)	1.50 ± 0.05
Dry content (%)	98 ± 1
Brookfield viscosity at 20°C (Cps)	6500 ± 500

PRODUCT PERFORMANCE CHARACTERISTICS ACCORDING TO UNI EN 13813

Wear resistance due to rotating loads (UNI EN 13892-5)	≤ 10cm^3
Impact resistance (UNI EN ISO 6272)	≥ 20 N·m
Adhesion strength (UNI EN 13892-8)	≥ 2.0 N/mm^2
Fire reaction (UNI EN 13501-1)	C_{FL} – s1

PRODUCT PERFORMANCE CHARACTERISTICS

Operating temperature	-30°C – +80°C
Weather resistance	Excellent
UV resistance	Excellent
Flexibility at low temperatures (ASTM D 522) before accelerated ageing	Temperature: -26°C NO BREAK
Flexibility at low temperatures (ASTM D 522) after 1000 hrs of accelerated ageing (ASTM D 4798) QUV Machine: Accelerate Weathering Tester. Model QUV/spray	Temperature: -26°C NO BREAK
Tensile strength (ASTM D 2370)	1100 psi – 7.5 N/mm^2
Elongation at breaking point (ASTM D 2370)	52%
Elongation at Breaking point after 1000 hrs of accelerated ageing	41%
Resistance to negative pressure (UNI EN 8298-8)	4 bars
Resistance to positive pressure (UNI EN 1928)	6 bars
Water absorption (ASTM D 471) at 24 hrs (%)	< 0,1

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Water absorption (ASTM D 471) at 7 days (%)	< 0.5
Water vapour permeability classification (UNI EN 1931)	Sd 1 (>0.5 <1)
Resistance to indentation carried out with shore d durometer (ASTM d 2240/DIN 53505/ISO/R 868)	60
Resistance to slipping/skidding of a surface: UNI EN 13036-4	Dry substrate: 73 (40 required) Wet substrate: 60 (55 required)

ADHESION TO THE SUBSTRATE (UNI EN 1542)

Adhesion to the substrate (N/mm²) after 14 days	
Concrete[1)]	≥ 2,76
Tiles [2)]	≥ 1,28
Bitumen [3)]	≥ 1,8
Adhesion to the substrate (N/mm²) after 14 days of immersion in water	
Concrete[1)]	≥ 2,20
Tiles [2)]	≥ 1,08
Adhesion to substrate (N/mm²) after 14 days of immersion in saltwater	
Concrete Substrate[1)]	≥ 2,20
Tiles [2)]	≥ 1,08
Adhesion to the substrate (N/mm²) after 14 days of immersion in water with pH 2	
Concrete[1)]	≥ 1,84
Tiles [2)]	≥ 1,22
Metal	≥ 2,00

Remarks: [1] Concrete Detachment [2] Tile Crack [3)] Bitumen delamination

PRODUCT CHEMICAL RESISTANCE RELATED TO INCIDENTAL CONTACT ONLY UNI EN 8298-4

Oil	EXCELLENT
Diesel	EXCELLENT
Gasoline	EXCELLENT
Ammonia	EXCELLENT
Bleach	GOOD
Brake fluid	EXCELLENT

EMISSION OF VOLATILE ORGANIC COMPOUNDS

Parameter	Maximum permissible concentration (µ/m³)
TVOC after 3 days	≤ 750
TVOC after 28 days	≤ 60

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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

9. 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.

10. 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. Do not dispose of the product and/or empty containers in the environment. Refer to the latest SDS for more information on disposal.

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.

11. PRODUCER

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