

MOSHE 3000 FLEX GREEN

Nanotechnological single-component shower pan liner and waterproofing agent for wet and wettable areas.

► Description

MOSHE 3000 FLEX GREEN was developed with nanotechnology, 100% inert minerals, and water-based acrylic resins; it contains no hydrocarbons in its formulation. It is an easy-to-apply single-component viscous liquid, offering unparalleled yield and the lowest cost on the market, providing greater productivity without harming the environment or the health of applicators and users (non-carcinogenic and completely non-toxic), with no unpleasant odors and low VOC levels (much lower than the limits required by USGBC LEED certification).

► Application Areas

- Suitable for use as a shower pan liner in shower pans and tub surrounds, providing a continuous waterproof barrier.
- Suitable for use in wet and wettable areas, such as bathrooms, laundry rooms, balconies, terraces, spas, hot butts, kitchens, among others
- Suitable for waterproofing mechanical rooms and HVAC enclosures
- Suitable for waterproofing of drywall boards, cement boards or plywood boards
- Suitable for waterproofing of substrates prior to application of vinyl or wood flooring (except if a solvent based primer or glue is demanded), porcelain tile, among others

► Advantages

It is a viscous liquid, nanotechnological, single-component waterproofing product, providing great ease and speed of execution. It offers a great durability, as it is composed of inert minerals and high-performance acrylic resins. A ready-to-use product, easy to apply; just need to open the bucket and mechanically mix for 2 minutes before application. **MOSHE 3000 FLEX GREEN** prevents infiltrations and the proliferation of fungi and bacteria, increasing the durability and healthiness of the construction.

- Single-component viscous liquid;
- Meets international technical requirements;
- High adhesion to various types of substrate (concrete, wood, plaster, among others);
- No primer required (except for unstable substrates, with flaking surface, situation which **MOSHE 3000 FLOOR & WALL** use is necessary);
- No base humidification required;
- Forms a low thickness membrane that does not add additional load to the structure;
- Allows simplified punctual repairs;
- Allows covering instalation directly over the membrane;
- Quick drying;
- Easy application with a wool roller, brush or airless spray (minimum 3300 PSI/ 230 bar, with 525 or 529 tip);
- Low consumption per square foot (square meter);

- Superior lifespan;
- High productivity.
- Eligible for up to 20-year product warranty, given the conditions described in Warranty Policy for the product, provided that the application method described below is followed (product system).

► Technical Data

Characteristic	
Density	1.24 g/cm ³
PH	8 – 10
Recommended Substrate Application Temperature	41 up to 167°F (5 up to 75° C)
Recommended Ambient Working Temperature	41 up to 131°F (5 up to 55°C)
Product Data	
Product Type	Water-based resins and mineral fillers
Appearance	Viscous liquid
Color	Green
Storage	Store appropriately in original and intact package at temperatures between 41 up to 113° F (5 up to 45°C)
Shelf life	Product sealed: 24 months after manufacturing date Product opened: 6 months after seal breakage, without exceeding the original sealed product validity, provided storage recommendations are met.
Packaging	33.8 fl oz (1 L) / 0.95 gal (3.6 L) / 4.75 gal (18 L)
Flammability	Non-flammable product (high flash point)
Odor	Slightly characteristic
VOC	19.3 g/L (USEPA) Method 24
UPC product code	850081363002 – 33.8 fl oz (1 L) 850081363019 – 0.95 gal (3.6 L) 850081363026 – 4.75 gal (18 L)

► Yield and consumption

Final yields may vary depending on the porosity and regularity of the substrate, on the application method, on the use of a reinforcing mesh (**MOSHE 3000 Reinforcing Mesh**) and on the applicator's skills.

The average product consumption, already with two coats applied is 0.7 fl oz/ ft² (225 ml/m²) or 0.91 oz/ ft² (277 g/m²)

Packaging	Application	Average Yield
33.8 fl oz (1 L)	2 coats	47.35 ft ² (4.4 m ²)
0.95 gal (3.6 L)	2 coats	172.16 ft ² (16 m ²)

4.75 gal (18 L)	2 coats	860.8 ft ² (80 m ²)
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► Application Method

MOSHE 3000 FLEX GREEN is single-component and must be applied without dilution or addition of other products.

Before:

- 1- Check the weather forecast for applications in outdoor areas or areas that may be exposed to rainwater. Avoid application in rainy weather or when the substrate is saturated or wet.
- 2- Prepare the substrate. The substrate must be clean and dry, free of loose or disintegrated parts, oils, cement paste, release agents, standing water, water jets, or any other material that may impair adhesion.
- 3- Check tools. The ideal and necessary tools are an electric mixer to homogenize the product, a low-pile wool roller or a brush for membrane application, and scissors to assist in cutting the reinforcing element (**MOSHE 3000 Reinforcing Mesh**).
- 4- In places where the floor meets cement boards, foam boards, drywall board or plywood board, these gaps between the floor and the wall must be filled with backer rod (filler rope), PU, modified thin-set mortar or rapid setting mortar, eliminating these voids. Same procedure must be adopted to fill in spaces between boards.
- 5- Structures to be treated with **MOSHE 3000 FLEX GREEN** must not have cracks or concrete defects greater than 2mm in thickness; if they exist, they must be treated/sealed before applying the product, and the reinforcing mesh must be installed in the affected area (**MOSHE 3000 Reinforcing Mesh**).
- 6- When there are pipes, apply specific products for this purpose, such as sealants and PUs for joining the pipe to the substrate.
- 7- If the product is to be applied to older slabs or walls, or those with a deteriorating substrate, one coat of **MOSHE 3000 FLOOR & WALL** shall be applied after washing or cleaning the slab, to bind the substrate together, thus preventing the product from peeling off due to the low strength of the substrate.
- 8- Open the package and mix. After opening the package, mechanically mix **MOSHE 3000 FLEX GREEN** for approximately 2 minutes.

During:

- 9- Application at Critical Points: Start applying, preferably with a brush or wide brush, a coat of **MOSHE 3000 FLEX GREEN** to corners, edges, connections (drains, vents, etc.) cracks and board seams. A strip at least 6 inches wide of the product should be applied towards each side, from the surface junctions (floor/wall or board/board), or from the center of the cracking, or from the junction of the connections with the application surface (floor/drain, floor/pipe, etc.). Ensure that a 6-inch-wide strip of **MOSHE 3000 FLEX GREEN** is also applied to the inside of drainage pipes, as well as to the area

immediately above the substrate level for pipes and other connections that penetrate the application surface. Unless otherwise specified by applicable regulations, a 6-inch-high strip of **MOSHE 3000 FLEX GREEN** should also be applied to the walls surrounding the application surface. Wait for this coat to dry. Apply a second coat. While the product is still damp, position the center of the **MOSHE 3000 Reinforcing Mesh** (7 7/8" wide) over the junction points specified above and fix it to the base, wrapping the reinforcing element with **MOSHE 3000 FLEX GREEN** using a brush or wide brush. For both coats, make sure to cover the entire surface to be waterproofed, without flaws or excesses.

- 10-First General Coat: Apply a first coat covering the entire application area, except for corners, edges, connections, and cracks already treated as per above. Make sure to cover the entire surface to be waterproofed, without flaws or excesses, as well as without gaps between the areas covered by the procedures mentioned in numbers 9 and 10.
- 11-Visual Inspection (First Coat): Visually check the coverage of the first coat after drying, with an average estimated time of 30 to 60 minutes. Check visually for any flawed spots in the membrane. Flaws, bubbles, or protrusions must be corrected before applying the second coat.
- 12-Second General Coat: Apply the second coat, covering the entire area, including those with reinforcing mesh, making sure to cover the entire surface to be waterproofed, without flaws or excesses.
- 13-Final Inspection and Curing: After the product has cured, perform a thorough visual inspection to verify that the entire substrate has been covered. If there are uncovered spots or inadequate application, apply an additional coat. After two coats, the application must reach a dry film thickness (DFT) of 8 mils.

After:

- 14- If there is leftover material, close the package tightly at the end of the application to prevent the product from solidifying in contact with air, which would prevent future applications.
- 15-With the product still wet, remove any product residue from tools and protective equipment with water and a brush.
- 16-Leakage test. Wait 48 hours after the last coat application to perform the leakage test, keeping the area filled with water for at least 24 hours, unless another period is established by applicable standards (photographic proof required to activate the product warranty).
- 17-Remove the water from the leak test, releasing the area to receive mechanical protection and/or the final floor or wall covering.

Lifespan and Maintenance

- 18- As this product consists of a system using acrylic resins, widely used for this purpose, we declare that the lifespan is greater than 20 years, as it is addressed to locations which maintenance requires the removal of the covering materials.

Care and Operation



- 19- Be aware of structural expansion joints. MOSHE 3000 FLEX GREEN does not replace elastomeric joints, among others, specific for expansion joints.
- 20- Do not apply on water-saturated substrate. Water retained inside the substrate may evaporate, causing bubbles to form during application. If this occurs, remove the compromised area, check the humidity and evaporation conditions in the area, and reapply the system according to the instructions above.
- 21- Where there are penetrating pipes, ensure their fixation with specific products for this purpose.
- 22- In areas waterproofed with MOSHE 3000 FLEX GREEN, do not use acids of any kind for cleaning, directly or indirectly over the membrane.
- 23- MOSHE 3000 is not responsible for design failures or structural failures. It is highly recommended that you contact MOSHE 3000's technical department to clarify any doubts before applying MOSHE 3000 FLEX GREEN.

Warranty:

- 24- Please check warranty conditions and statements for the product on our website, in the area reserved for MOSHE 3000 FLEX GREEN (<http://www.moshe3000.com>).

► Personal Protective Equipment (PPE)

Although it is a non-toxic product, we recommend using a personal protective mask, natural rubber gloves, safety glasses or face shield, appropriate clothing, and safety boots. Any symptoms of allergy, skin irritation, or eye contact should prompt immediate medical attention.

Do not reuse the packaging for food purposes. Care should be taken with opened packaging in the presence of children, whether or not there is product inside.

► Transport and Storage Limitations

Maximum stacking of 3 units of 4.75 gal (18 L) pails, or 5 units of 0.95 gal (3.6 L) or 5 units of 33.8 fl oz (1L) plastic bottles.

► Storage and Disposal

Store in a covered place, protecting the buckets from rain and sun, keeping containers well closed and protected from damage. Storage temperature shall be above 41° F and under 113° F (above 5° C and under 45° C).

Dispose of the product and its packaging in accordance with local, state, and federal environmental regulations. Do not discharge into sewers, waterways, or the environment. Empty packaging should be sent for recycling or disposed of in authorized landfills.

► **Certifications and Technical Reports**

MOSHE 3000 FLEX GREEN TECHNICAL TEST RESULTS		
Tests	Meet	Specification
Water penetration under positive pressure	Yes	At least 0,25 MPa
Water penetration under negative pressure	Yes	At least 0,10 MPa
Resistance to Chemical Attack	Yes	Hydrochloric acid, 3% volume/volume
Resistance to Chemical Attack	Yes	Hydrochloric acid, 18% volume/volume
Resistance to Chemical Attack	Yes	Potassium Hydroxide, 30 g/L
Resistance to Chemical Attack	Yes	Potassium Hydroxide, 100 g/L
Resistance to Chemical Attack	Yes	Hydrochloric acid (pH 2)
Resistance to Chemical Attack	Yes	Hydrochloric acid (pH 14)
Volatile Organic Compounds (VOCs)	Yes	19,3 g/L
Tensile strength in the longitudinal direction, with reinforcement	Yes	3,90 MPa (390 N/cm)
Elongation at rupture in the longitudinal direction, with reinforcement	Yes	31%
Tensile strength in the transverse direction, with reinforcement	Yes	3,89 MPa (389 N/cm)
Transverse rupture elongation, with reinforcement	Yes	36%
Safety Test	Yes	Below the maximum allowed limits
Leaching analysis in contact with drinking water	Yes	Below the maximum allowed limits
Tensile strength at break	Yes	2,75 MPa (275 N/cm)
Tensile strength at break, after 7 days of immersion	Yes	0,92 MPa (92 N/cm)
Stretching in the Rupture	Yes	100,25%
Stretching in the Rupture, after 7 days of immersion	Yes	513,4%
Water Absorption for 7 days	Yes	3,67%
Water Absorption for 28 days	Yes	3,91%
Adhesion Strength	Yes	0,58 Mpa (58 N/cm)
Adhesion Strength, after immersion	Yes	0,57 Mpa (57 N/cm)

Certifications:

- Health Building Certificate / USA
- NSF 61 and NBR 12170 (drinking water systems)
- ABNT NBR 13321- Waterproofing Acrylic Membrane
- ASTM D6904 – Wind-Driven Rain (passed)
- ASTM E96 – Water Vapor Transmission
- ASTM D5975 Flood Testing of Horizontal Waterproofing Installations
- ABNT NBR 10787 and 11905 – Water Penetration Under Positive and Negative Hydrostatic Pressures
- ABNT NBR 13818:1997 – Resistance to Chemical Attack



- ASTM D2369-20 and ASTM 4017-22 (USEPA Method 24 & USGBC LEED Certification)
– VOC contents