

S-TECH 100M™

**100% SILANE-BASED, IMPREGNATING WATER REPELLENT
OPTIMIZED TO PROVIDE SUPERIOR PROTECTION FOR MASONRY,
INCLUDING BRICK, CONCRETE, NATURAL STONE AND TERRACOTTA.**

S-TECH 100M™ is a fully breathable, modified silane impregnator which penetrates deeply and provides superior water repellent. S-TECH 100M™ is optimized to bond efficiently inside a wide variety of masonry, including all types of natural stone, cast stone, brick, terracotta, concrete and grout.

S-TECH 100M™ is designed to maintain the condition and maximize the life of masonry against common forms of damage caused by the ingress of water and salts, including: Efflorescence and leaching of other water soluble minerals, freeze-thaw / salt spalling and picture framing. It also keeps surfaces looking good for longer and makes them easier to clean and maintain.



TYPICAL APPLICATIONS

- Protection masonry materials used in the building envelope and horizontal surfaces, including: Building facades, cladding, blockwork, brickwork, grout, pathways, terraces and patios.
- S-TECH 100M™ is suitable for new build and restored masonry surfaces.
- Recommended for specification where building is exposed to consistent high rainfall and / or freeze thaw conditions.

SUITABLE SURFACES

Suitable for a wide range of porous building materials, including natural stone, cast stone, brick, terracotta, concrete and grout.

WARRANTY

A 20 year performance warranty is available if product is applied by a level 4 Accredited Applicator at the optimal application rate (see section on Total Application Rates), according to our written instructions and guidelines and samples are provided to us for testing. Industry professionals can contact their local Dry-Treat representative or email info@drytreat.com to enquire about Accredited Applicator training and certification.



BENEFITS

- Smaller silane for maximum penetration.
- Formula is optimized to facilitate efficient bonding across all types of masonry, including non-cementitious, low pH materials such as brick and natural stone.
- Maximum penetration and optimized bonding efficiency provide superior long term water repellence.
- Premium protection against freeze-thaw / salt water spalling, efflorescence, picture framing, damp migration and other common damage caused by water and chloride ion ingress
- No color change on most stones and masonry surfaces.
- Negligible change to slip resistance when applied according our written instructions and guidelines.
- A 20 year performance warranty is available – see Warranty section below for details.
- High resistance to alkaline (high pH) environments. Concrete is highly alkaline / base and can severely shorten the life of other technologies.
- Able to seal hairline cracks up to 0.3 mm (0.012 in.)
- Non film forming so it cannot flake or peel and is resistant to UV
- Dry-Treat only uses silanes which produce alcohol. Dry-Treat sealer do NOT contain methoxy silanes which emit methanol and can cause blindness / death

HOW TO USE

1. **ALWAYS TEST PRODUCT ON A SMALL AREA FIRST and allow a 24 hour cure time to determine the ease of application and desired results.**
2. Wear suitable solvent-resistant gloves, protective clothing, safety goggles and an organic vapor respirator during application
3. Ensure surfaces to be treated are dry, clean and free of residues
4. Surface temperature should be 40 - 95° Fahrenheit / 5 - 35° Celsius
5. Product is not to be diluted / thinned
6. When applying to a building façade or within reach of other surfaces, mask or otherwise protect these other surfaces such as window frames from overspray. If they receive overspray, clean immediately with alcohol, methylated spirits or acetone.
7. Apply the product using a low pressure sprayer with a fan spray nozzle working from the lowest sections upwards.
8. On horizontal surfaces, apply 2 generous coats, at least 10 minutes apart. For the best results, wait longer between coats, but apply each coat before the previous coat has dried.
9. On vertical surfaces, to minimize dripping and running it is best to apply 4 lighter coats rather than 2 heavy coats and to begin at the bottom of a surfaces and work upwards.
10. Total application rate varies widely depending on the material, porosity and finish: 160 – 600 sq. ft. per gallon (4 – 15 sq. m. per liter). See table under Total Application Rates below.
11. Thoroughly polish off any excess product residue on the surface with clean, white absorbent cloths before the final coat dries. Tip: to minimize the amount of excess do some tests to determine the right amount of product to spray for each coat.
12. Clean equipment with methylated spirits, alcohol or acetone

Warning: Sealer will not prevent acid etching or physical wear of the surface and may cause some darkening

ADVANCED APPLICATION GUIDELINES

- **Limitations:**
 - S-TECH 100M™ should never be diluted
 - S-TECH 100M™ should only be used on exposed surfaces which are not subjected to constant static water pressure.
 - Not intended for below-grade waterproofing or for use as a waterproof membrane.
- **Do not dilute or apply to a wet surface:** Silanes are reactive. This means they react chemically to form covalent bonds within the treated material. If the silane is made to react before it finds suitable bonding sites, then it cannot bond inside the pores and performance and lifespan can be affected.

PACK SIZE

- USA and Asia Pacific – 5 gallon / 18.9 liter; 54 gallon / 204.5 liters; 250 gallon / 946 liter - special order
- Europe – 5 Gallon (18.9Litre); 54 and 250 gallon - special order.

YIELD

160 - 600 sq. ft. per gallon (4 – 15 sq. m. per liter).

SHELF LIFE & STORAGE

- Use product within 18 months of purchase.
- Keep container tightly sealed, in a well-ventilated place, at 36 - 85°F or 2 - 30°C

TECHNICAL DATA

- Active Content: >98% modified silane plus optimizers.
- Specific Gravity: 0.88
- Color: Clear colorless liquid
- Weight: 7.34 lbs / gallon; 0.88 kg / liter
- VOCs: <390 g/liter

COUNTRY OF MANUFACTURE

USA

TEST RESULTS

NCHRP244 series ii, immersion of concrete cube test

(Conducted on very high density 69 MPa structural concrete)

- Reduction in absorption of water after 72 hour immersion: >94%
- Reduction in absorption of NaCl solution after 72 hour immersion: >96%

ASTM C67 RILEM Tube Test - Water Absorption of Brick

- Reduction of water absorption after 24 hours: ~98% (>90% is considered excellent)
- Penetration (application rate of 320 sq ft. / gallon (8 sq. m. / Liter): >20mm (>5mm is considered excellent)

TYPICAL PENETRATION

5 - 20mm depending on application rate and surface porosity.

- **Testing and cure time:** It can take up to 4 weeks for all of the silane molecules to migrate and find suitable sites to bond inside the pores. As more silane bonds inside the treated material, performance improves. It is recommended to let treated surfaces cure in a well ventilated area for at least 3 weeks before testing for penetration or water repellence.

- **Applying the right amount of product consistently on a large area:**
 - Only tackle one small area at a time – so that you can apply additional coats before any residue from the previous coat dries.
 - It is recommended to measure out an area before starting application and a suitable amount of product to get a visual gauge and feel for how much product to spray for each coat.
 - At regular intervals measure the area you have sealed and the amount of product used to check that you are consistently applying the desired amount of product.
 - When applying additional coats, apply each coat perpendicular to the previous coat, to ensure all areas of the surfaces receive a consistent amount of product.
- **Dense surfaces (especially with a polished finish):** Use lamb's wool applicator or brush, so the sealer is wiped over the surface. Spraying is not recommended for polished surfaces. Dwell time between coats should be maximized to give the product maximum opportunity to penetrate.
- **Highly porous surfaces:** Highly porous surfaces, such as sandstone and some varieties of limestone should ideally be pre-sealed with a light spray of S-TECH 100M™, at least 8 hours before applying the main coats. Apply sufficient product so the surface looks shiny / mirror wet for at least 3-5 seconds after each coat before it soaks in.
- **Excess product (product residue):**
 - The amount of residue left on the surface, once the sealer has had sufficient time to penetrate, will vary depending on the surface type, porosity and finish. More porous surfaces with a honed (matte) or rougher finish will often absorb all the product applied, leaving no residue, while surfaces such as granite, especially if they have a highly polished finish will be less absorbent and there will be plenty of excess product to remove.
 - Excess residue must always be thoroughly removed by polishing with clean, dry, absorbent white cloths before it dries on the surface. If the product has dried, damp a cloth with a small amount of product and use this to soften the residue, then polish off with a clean dry cloth.
- **Cleanup of equipment / spills:** Ensure you have a good supply of alcohol, methylated spirits or acetone and clean white absorbent cloths, paper towels to clean your equipment and any overspray. If using solvent to clean overspray, take care not to damage any paint, coatings or other vulnerable surfaces.
- **Applying to vertical surfaces:** On vertical surfaces, to minimize dripping and running it is best to apply 4 lighter coats rather than 2 heavy coats and to begin at the bottom of a surfaces and work upwards. Place tarp or plastic sheets below to catch the excess drips.
- **Quick method for avoiding overspray:**
 - Have a light rectangular piece of board handy which you can hold with one hand to protect surfaces while you spray with the other hand. This is quicker than masking off areas.
 - Note: If product overspray lands on adjacent surfaces such as window frames, it will cause these to become water repellent, so overspray should be removed with clean white absorbent cloths immediately (methylated spirits, alcohol or acetone can be used but take care not to damage any paint or coating).

TOTAL APPLICATION RATES

- Use table below to find the correct total application rate for a particular material. If you are unsure what application rate to use, seek advice from your local Dry-Treat Representative.
- Total Application Rates include all coats. So, if for e.g. the total application rate is 200 sq. ft. per gallon (5 sq. m. per liter), and you are applying 4 coats to a vertical surface, you will apply each coat at approximately 800 sq. ft. per gallon (20 sq. m. per liter).

Surface Type	sq ft/gal.	sqm/L
Basalt - Porous (Chinese)	280	7
Basalt - Dense (European)	480	12
Bluestone (Australian Basalt)	400	10
Bluestone (USA Boston Bluestone)	240	6
Brick	240	6
Poured Concrete	280	7
Precast Concrete	280	7
Concrete Paver (dry pressed)	160	4
Concrete Paver (wet cast)	280	7
Coral Stone	200	5
Granite Flamed	240	6
Granite Honed	320	8
Granite Polished	4800	12
Grout Lines	1200 linear feet	90 linear meters
Limestone Honed - Dense	280	7
Limestone Honed - Porous	200	5
Limestone Polished	400	10
Marble Honed	400	10
Marble Polished	600	15
Saltillo	200	5
Sandstone (Indian, hard)	280	7
Sandstone (soft)	160	4
Slate - Dense black	480	12
Slate	280	7
Terracotta dense	280	7
Terracotta porous	200	5
Travertine honed	280	7
Travertine polished	400	10

TRANSPORT

Not regulated for transport of dangerous goods:

DOT (Road), IMDG (Ocean), IATA (Air) Transport

WARNING

Combustible liquid. Causes skin irritation. Harmful to aquatic life. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid release to the environment. Wear protective gloves/ protective clothing/ eye protection/face protection. Take off contaminated clothing. In case of fire: Use alcohol resistant foam or normal protein foam for extinction. IF ON SKIN: Wash with plenty of water and soap. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash it before reuse. Store in a well-ventilated place. Keep cool. Dispose of contents/ container in accordance with local regulations.

FIRST AID

- If swallowed, give a glass of water and contact a physician.
- If skin contact occurs remove contaminated clothing and wash skin thoroughly. If irritation persists, contact a physician.
- If in eyes, hold open, flood with water for at least 15 minutes and contact a physician.
- If vapors are inhaled, relocate to fresh air. If symptoms persist contact a physician

ACCIDENTS

- Spillage – Take up mechanically or with absorbent material such as sand, earth or vermiculite.
- Remove all ignition sources

PRECAUTIONS

- Do not take internally.
- Apply when surface temperature is between 5 and 35 C° (40 to 95°F).
- Avoid moisture contact with the surface for 6 hours after application.
- Protect surrounding areas from over spray .
- Keep away from drains, plants, water and soil.
- Use only in well-ventilated areas.
- Use a positive pressure respirator if ventilation is inadequate.
- Wear suitable solvent-resistant gloves, protective clothing, safety goggles and an organic vapor respirator during application.
- Avoid applying in windy conditions.
- Wash hands thoroughly.