MASONRY & ENGINEERED CONCRETE PROTECTION

DRYTREAT

Excellence in sealing products™

TABLE OF CONTENTS

World Leading Protection for Masonry & Engineered Concrete

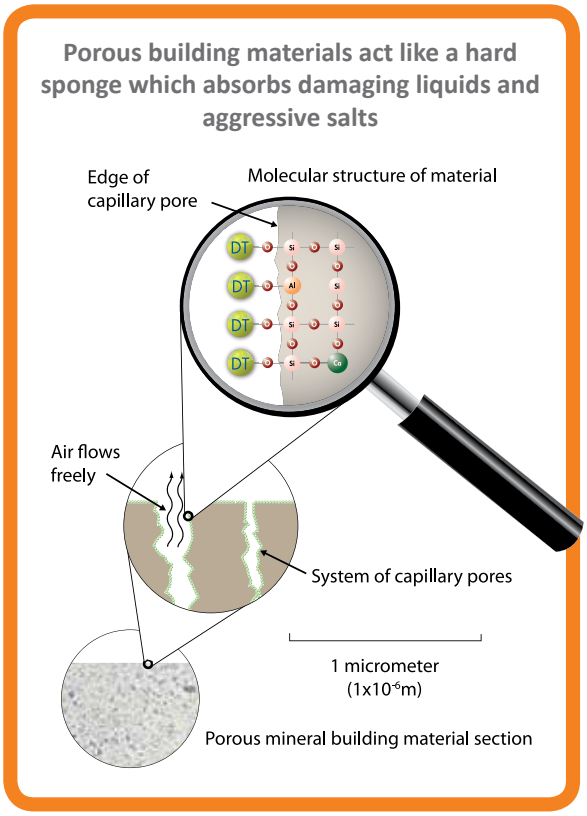
The Ultimate Hydrophobic Barrier

Dry-Treat™ modified silane impregnators are designed to provide superior protection for a wide range of masonry and engineered concrete. For decades, silane technology has been global best practice protection for masonry and engineered concrete against cosmetic staining and common problems caused by the ingress and movement of water and water-borne salts, including: freeze thaw and salt spalling, efflorescence, picture framing, corrosion of integrated metal rebar, alkali silica reactions and damp control.

Dry-Treat™ silanes are designed and optimized for maximum penetration into the capillary structure of porous building materials and superior bonding efficiency, to create the most effective, longest lasting oleophobic and/or hydrophobic (water repellent) barrier.

Dry-Treat™ History

In 1991 Dry-Treat™ was founded out of a civil engineering company, which specialized in the preventative treatment and remedial restoration of engineered concrete. With a focus on research and development, Dry-Treat™ continues to design world class treatments for a wide range of porous building materials, including brick, terracotta, natural stone, grout, precast and engineered concrete.



Low Cost

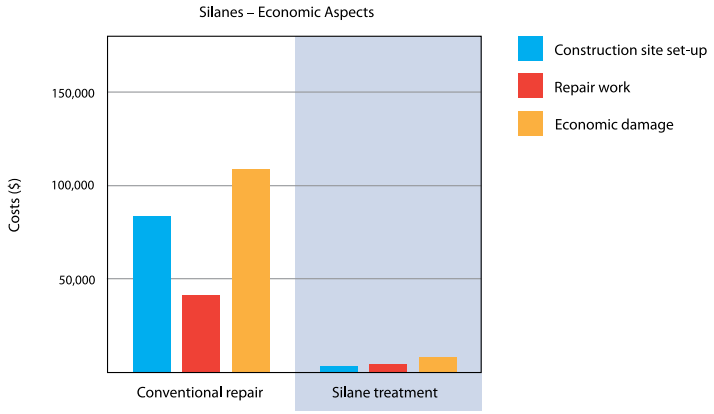
10 YEAR WARRANTY

15 YEAR WARRANTY

20 YEAR WARRANTY

30 YEAR WARRANTY

- Dry-Treat™'s silane sealers require minimal equipment and time to apply.
- Preventative maintenance is less costly than repair or rebuilding. Treating a masonry or concrete surface with high quality silanes as a preventative measure usually costs 10%, or less, of the cost of remedial repair/rebuilding.
- A percentage of maintenance costs are due to service interruptions—i.e. closing all or part of a structure for maintenance work. The extended lifespan of Dry-Treat's concrete and masonry sealer range means re-application is only necessary every 10-30 years so there is zero or minimal disruption to normal activity.
- Silanes are cost-effective, world's best practice technology for protecting engineered concrete, proven to extend the life of concrete structures by up to 100+ years. They are specified by government departments and private enterprise across Europe, Asia Pacific, USA and Canada.



Typical Applications

	S-TECH 100M	S-TECH 40M	STAIN-PROOF M	S-TECH 40SK	S-TECH CONCREME	S-TECH 100C	S-TECH 100Cci
Blockwork/Brickwork	✓	✓	✓	✓			
Bridges					✓	✓	✓
Building Facades/ Cladding	✓	✓	✓	✓			
Car Parks					✓	✓	✓
Paving & Driveways	✓	✓	✓	✓	✓	✓	✓
Damp Course Injection					✓	✓	
High Rise Structures					✓	✓	✓
Highways					✓	✓	✓
Masonry Restoration	✓	✓	✓	✓			
Patio/Terraces	✓	✓	✓	✓			
Rail Bridge Decks					✓	✓	✓
Rendering/Stucco	✓	✓	✓	✓			
Swimming Pool Surrounds	✓	✓	✓	✓			
Walkways	✓	✓	✓	✓	✓	✓	✓
Wharfs & Jetties					✓	✓	✓

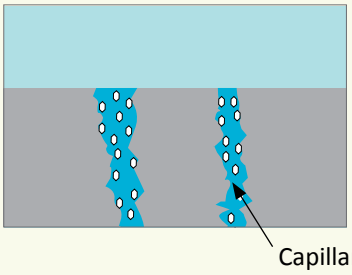
WHY SEAL?
Porous Materials: Common Problems

Salt and freeze-thaw spalling

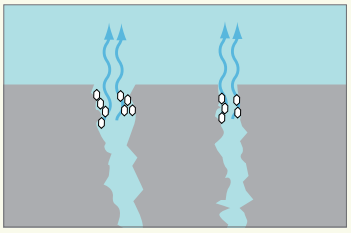
Spalling is caused by soluble minerals (salts) or freeze-thaw action. These processes begin at a micro level, opening up the material little by little which allows greater and greater water ingress into the structure. This process accelerates over time until extensive visible spalling occurs.

Spalling in concrete structures leaves the underlying steel reinforcements more exposed to water and vulnerable to corrosion.

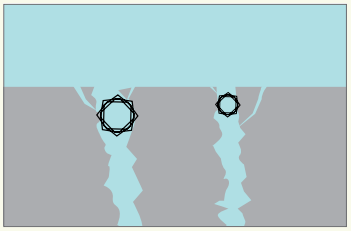
Salt Spalling:



Porous materials have millions of interconnected pores/ capillaries which absorb water and dissolved salts.



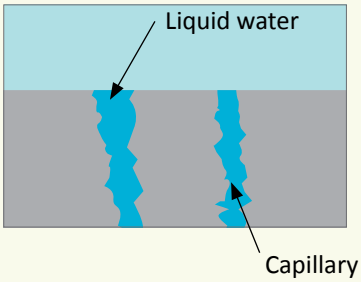
Water evaporates leaving salt crystals behind below the surface.



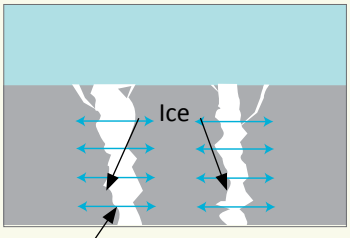
As more salt water moves through the material, the salt crystals grow. When this happens close to the surface microscopic pieces of the material break off (spall). This process continues and accelerates until the surface is visibly and deeply damaged.

Spalling in engineered concrete structures leaves the underlying steel reinforcements more exposed to water and vulnerable to corrosion.

Freeze-thaw spalling:



Porous materials have millions of interconnected pores/ capillaries which absorb water and dissolved salts.

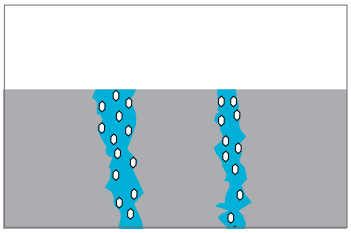


Water in the pores expands as it freezes. When this happens close to the surface, microscopic pieces of the material are broken off (spall), until the surface is visibly and deeply damaged.

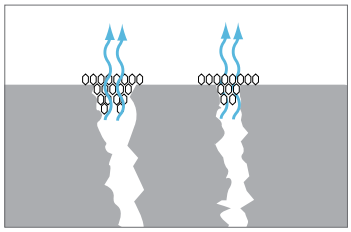
Spalling in engineered concrete structures leaves the underlying steel reinforcements more exposed to water and vulnerable to corrosion.

Efflorescence

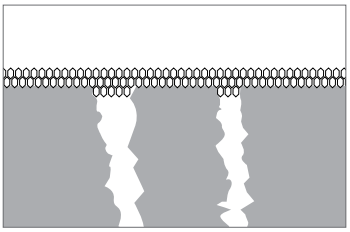
Many building materials, including concrete and grout, contain soluble minerals/salts which will leach out over time if water is allowed to penetrate and move through the pore system. This results in unsightly patches of minerals on the surface, called efflorescence, which harden and require specialist costly treatment to remove.



Porous materials have millions of interconnected pores/ capillaries which absorb water and dissolved salts.



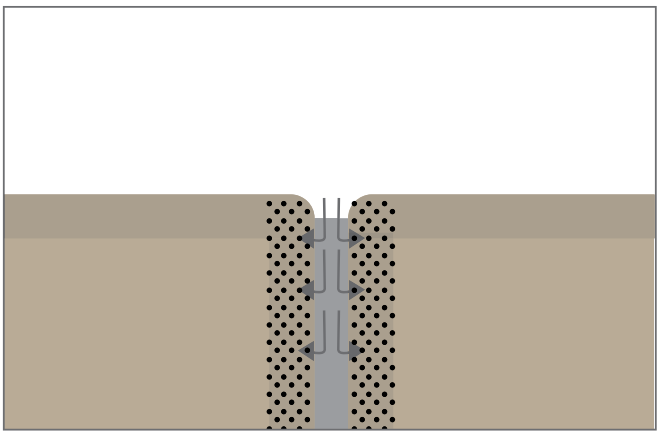
Water evaporates leaving salt crystals behind on the surface. This process repeats until unsightly patches of minerals (called efflorescence) become apparent on the surface.



Fresh efflorescence can be removed by scrubbing with a stiff bristle brush. When efflorescence hardens, specialist treatment is required.

Picture Framing

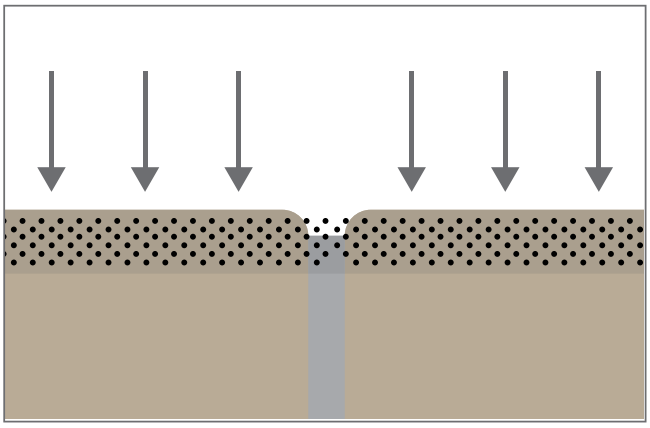
Picture framing is a visible stain occurring around the border of tiles, paving and cladding. Picture framing is caused by water with dissolved contaminants penetrating into the edges of unsealed tiles and evaporating, leaving the contaminants behind. Picture framing is permanent and cannot be fixed, so prevention by sealing is particularly important.



Water with dissolved contaminants penetrates into the edges of unsealed tiles and evaporates, leaving contaminants behind.

Staining

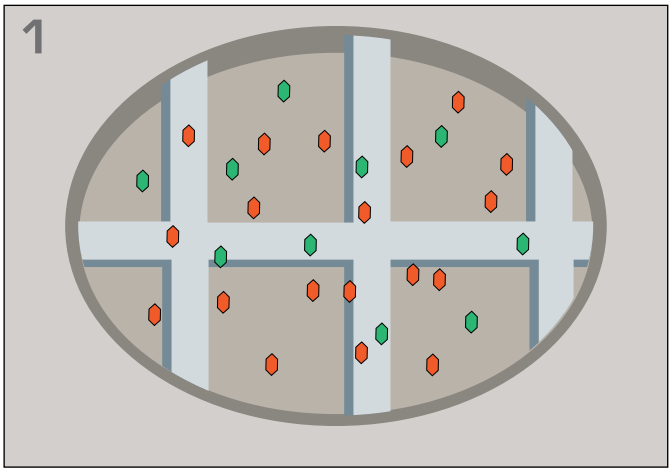
Porous building materials act as a sponge with the capillaries actively drawing in liquids, so these materials will readily stain if left untreated. Staining requires costly specialist treatment and can, in some cases, be impossible to remove, so prevention is very important.



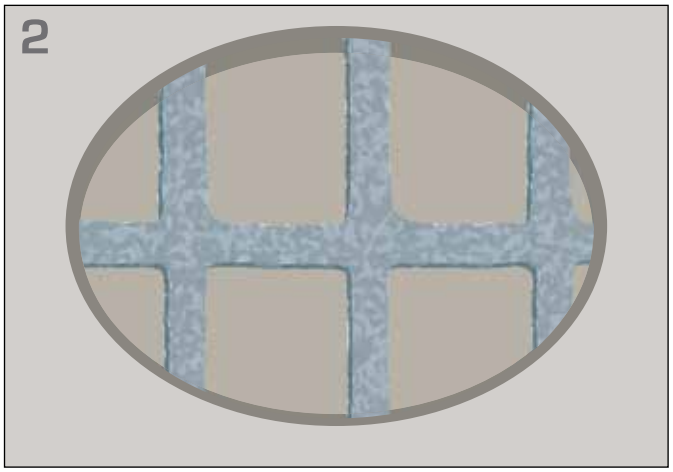
Oil and water based liquids penetrate into the pores and dry, leaving stains which can be difficult to remove.

Damp Migration

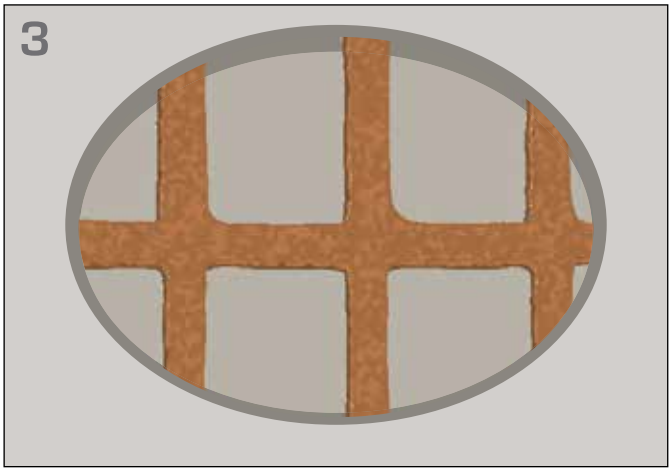
Moisture migrates through the pores of a material continuously, from wetter to drier areas, until it can evaporate and escape. An excess of moisture inside porous materials causes mold growth, including concrete cancers, and can make building interiors damp and dangerous for people.



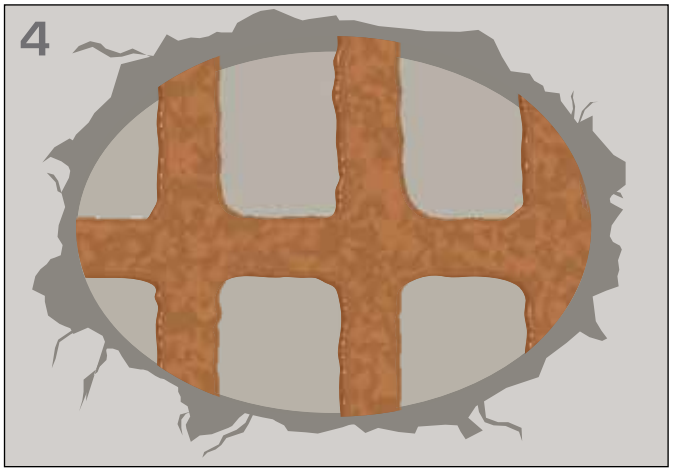
Dissolved salts (chloride ions) penetrate and move through the pore structure of the concrete and come into contact with the steel reinforcement (rebar).



Rebar begins to rust (oxidize).



Continuous internal moisture, especially water containing chloride ions, creates an electrical circuit which accelerates oxidation of the rebar.



As layers rust build up, the rebar swells, putting pressure on the concrete cover. The concrete cover, weakened by spalling and under pressure from the swelling rebar begins to break away in sections.

Structural Corrosion:

Swelling of steel reinforcement due to rust buildup has broken away the concrete cover, exposing the steel and making it even more vulnerable to corrosion, threatening the integrity of the entire structure.

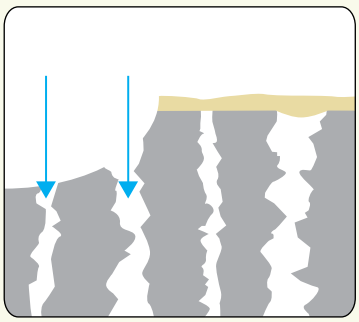
DRY-TREAT™ Silane Technology

The world of silicones, siloxanes, silanes and silicates is complex, with thousands of possible chemical variations. Dry-Treat™ creates superior impregnators by maximizing performance across different types of surface materials and optimizing each product for its specific applications and functions. For example:

- The most important factors for silane impregnators are depth of penetration, concentration and bonding efficiency. Greater penetration provides a deeper oil and/or water repellent zone. Superior bonding efficiency = more silane chemically bonded inside the pores = superior repellence and longevity.
- Standard 'off the shelf' silanes are designed to penetrate and bond optimally with concrete – a high pH, high silicate material. Dry-Treat™ masonry silanes are optimized to also bond with low pH, low silicate materials such as brick and natural stone and to penetrate the densest masonry materials including polished granites and basalts.
- Dry-Treat™ only uses silanes which produce alcohol, NOT methoxy silanes that produce dangerous methanol.

Dry-Treat™ Impregnators vs other sealing technologies

Topical Coatings



Little penetration, so if surface damage occurs there is no protection from water ingress.

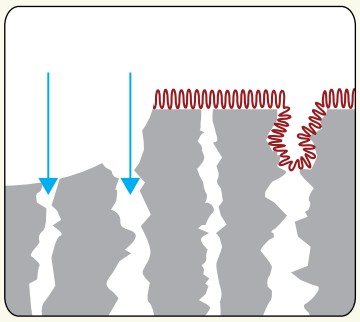
Topical Coatings - Pros:

- Excellent protection from water and oil ingress for a limited time, while intact.

Topical Coatings - Cons:

- Exposed to UV, weathering, traffic and cleaning = shorter lifespan.
- Breaks down in high pH environments (e.g. concrete).
- Not breathable so water which wicks into the building material cannot evaporate and escape.
- Tiny breaks in the coating compromise the seal, allowing water to migrate in.
- Surface more slippery when wet.
- Once worn, coating needs to be stripped of to ensure a good re-application.
- Limited protection against efflorescence, picture framing, damp migration, and spalling.

Other Impregnators



Little penetration, so if surface damage occurs there is no protection from water ingress.

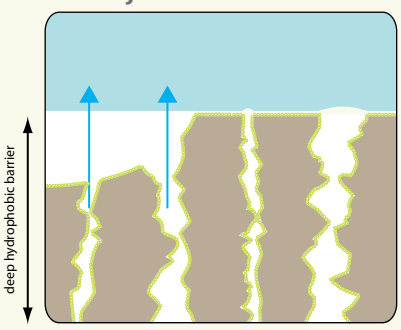
Other Impregnators - Pros:

- Modern Fluoropolymers and older silicone / siloxane impregnators are good water repellents.
- Partially breathable - water can evaporate and escape, but more slowly.

Other Impregnators - Cons:

- Larger molecules = less penetration.
- Exposed to UV, weathering, traffic and cleaning and the elements = shorter lifespan.
- Surface can be more slippery when wet.
- Breaks down in high pH environments (e.g. concrete).
- Less protection against efflorescence, picture framing, damp migration, and spalling.

Dry-Treat™ Silanes

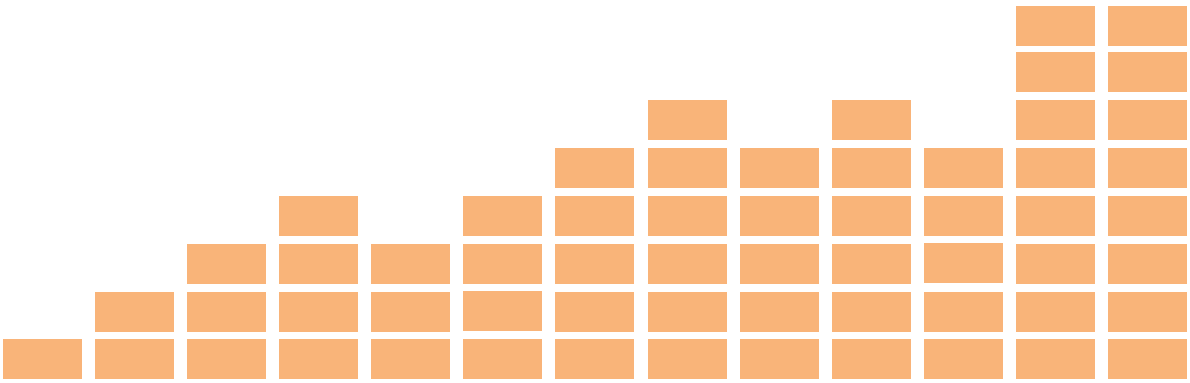


Deep penetration - Dry-Treat™ silanes deep in the pores still repel water and/or oil even if the outer surface is damaged.

Dry-Treat Silanes - Pros:

- Significantly smaller molecules (over 300x) penetrate deeply even into dense materials such as granite.
- Not affected by UV, surface wear, cleaning and traffic.
- Optimal lifespan (performance warranties 10 - 30 years).
- Resistant to high pH environments.
- No significant change to slip resistance or natural color.
- Fully breathable, allows ~98% water vapor to escape freely.
- Optimal protection against efflorescence, picture framing, damp migration, and spalling.

PRODUCT DATA SHEETS



STAIN-PROOF M™

PREMIUM WATER AND OIL REPELLENT IMPREGNATOR

OPTIMIZED FOR SUPERIOR, LONG LASTING PROTECTION OF POROUS MATERIALS, INCLUDING BRICK, CONCRETE, NATURAL STONE, TERRACOTTA AND GROUT.

STAIN-PROOF M™ is an impregnating, invisible, fully breathable, silane-based impregnating sealer. STAIN-PROOF M™ provides superior, longer lasting protection against common forms of damage caused by the ingress of oil and water-based liquids, including: Staining, efflorescence, freeze-thaw / salt spalling and picture framing. It also keeps surfaces looking good for longer and makes them easier to clean and maintain.

STAIN-PROOF M™ is optimized for maximum penetration and bonding efficiency across the widest range of exposed cementitious and non-cementitious porous building materials, from the densest natural stones to highly porous precast concrete, brick, terracotta and grout.

TYPICAL APPLICATIONS

- STAIN-PROOF M™ is suitable for outdoor residential and commercial applications, including: building facades, floors, walls, swimming pool surrounds, patios, garages, driveways, pathways, and entertaining areas.
- STAIN-PROOF M™ is designed for new or restored, horizontal or vertical, architectural or structural surfaces, including: Cladding, tile, paving, blockwork, brickwork, precast panels, stack stone, veneers and grout joints.
- Recommended for use on horizontal surfaces which require protection from oil-based staining from food and beverages as well as water ingress.

SUITABLE SURFACES:

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

BENEFITS:

- Unique super-penetrating, permanent bonding technology for long lasting protection.
- Superior water and oil repellence for superior stain protection: Tested in accordance with ISO 10545-14 Determination of resistance to stains Class 5 (highest class).
- Premium protection against common types of damage caused by water and chloride ion ingress, including freeze-thaw / salt water spalling, efflorescence, picture framing and damp migration.
- Smaller silane for maximum penetration, even into dense natural stones such as granite.
- Forms full covalent chemical bonds, lining the pores of the treated material.
- Formula is optimized to facilitate efficient bonding across all types of porous masonry, including non-cementitious, low pH materials such as brick and natural stone.
- A 15 year performance warranty is available – see Warranty section below for details.
- Designed for outdoor use on residential and commercial use.
- No color change on most stones and masonry surfaces.
- Treated surfaces are easier to clean and remain looking good for longer.
- Fully breathable – allows water to evaporate and escape freely as water vapor, preventing harmful moisture buildup inside the treated material.
- Stands up to alkaline cleaners and pressure hosing.
- Retains slip resistance when applied according our written instructions and guidelines.
- 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 sealers do NOT contain methoxy silanes which emit methanol and can cause blindness / death

WARRANTY:

A 15 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.

15 YEAR WARRANTY

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. Product is not to be mixed or used on the same job as STAIN-PROOF Original™.
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

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:

- Best within 24 months of purchase.
- Keep container tightly sealed, in a well-ventilated place, at 36 - 85° Fahrenheit or 2 - 30° Celsius

TECHNICAL DATA

- Active Content: >49%
- Specific Gravity: 0.84
- Color: Clear colorless to light straw yellow liquid
- Weight: 7.02 lbs / gallon; 0.84 kg / liter
- VOCs: <629 g/liter (using EPA method 24)

COUNTRY OF MANUFACTURE

USA

TEST RESULTS

Stain Test: ISO 10545 – 14:1995 – Part 14: Determination of resistance to stains:

- Iodine on granite – class 5 (highest rating)
- Olive oil on granite – class 5 (highest rating)

Slip Test: AS/NZS 4586:2004:

- Mean BPN untreated surface – 67
- Mean BPN surface treated with STAIN-PROOF™ - 68
- Negligible change to slip resistance.

TYPICAL PENETRATION

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

ADVANCED APPLICATION GUIDELINES:

- **Limitations:**
  - STAIN-PROOF M™ should never be diluted
  - STAIN-PROOF M™ 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.
- **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 STAIN-PROOF™, 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

Proper shipping name: Flammable liquid, n.o.s. (contains acetone). Dangerous Class: 3 UN Number: 1993 Packing Group: II

Made in USA

WARNING

Highly flammable liquid and vapor. Harmful if inhaled. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. Harmful to aquatic life with long lasting effects.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. use only outdoors or in a well-ventilated area. Ground container and receiving equipment. Use explosion-proof electrical safe equipment.

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.

S-TECH 40SK™

CONSOLIDATOR AND WATER REPELLENT

SUPERIOR PROTECTION OF VERY POROUS BRICK, CONCRETE, NATURAL STONE AND TERRACOTTA AGAINST FREEZE-THAW / SALT SPALLING.

S-TECH 40SK™ is an impregnating, invisible fully breathable consolidator and silane water repellent. S-TECH 40SK™ is designed to protect softer, more porous building materials in a freeze-thaw or salt water environment and helps to consolidate friable surfaces.

Denser, stronger materials may only require a water repellent, but S-TECH 40SK is recommended for very porous types of natural stone, brick, terracotta, paving and grout which are more prone to spalling damage caused by water freezing and dissolved salts. Treated surfaces become easier to clean, maintain and keep looking good for longer.

TYPICAL APPLICATIONS

- Protection of very porous building materials used in the building envelope and horizontal surfaces, including: Cladding, blockwork, brickwork, grout and salt water pool surrounds, paving and patios.
- S-TECH 40SK™ is suitable for new build and restored masonry surfaces.
- Recommended for use on very porous building materials which are exposed to salt water or freeze-thaw conditions.

SUITABLE SURFACES:

Suitable for very porous building materials, including sandstone, limestone, low MPA precast concrete, cast stone, more porous brick, Saltillo, terracotta and grout.

BENEFITS:

- S-TECH 40SK™ is a specialized impregnator, designed for premium protection of very porous building materials against spalling in a freeze-thaw and / salt water environment.
- Penetrates deeply and forms full covalent bonds inside the capillaries for maximum, long lasting performance.
- Superior protection against other problems caused by water and water borne salts, including: efflorescence, picture framing and damp migration
- Widely used for sealing sandstone, limestone, travertine, dry-stamped concrete pavers, cast stone and low MPA precast concrete around salt water swimming pools or on vertical surfaces exposed to freeze-thaw conditions.
- Retains natural surface color and finish
- Keeps surfaces looking new for longer, makes cleaning easier
- Fully breathable, allowing water vapor to escape freely, avoiding harmful moisture build-up inside the material
- Designed for outdoor surfaces on residential and commercial projects.
- Negligible change to slip resistance when applied according our written instructions and guidelines.
- A 15 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

WARRANTY:

A 15 year performance warranty is available if product is applied by a level 3 or 4 Accredited Applicator according to our written instructions and guidelines, at the minimum total application rate for the surface material (see table in the Total Application Rates section above).

15 YEAR WARRANTY

Surface materials which are in regular contact with salt water, including the splash zone around salt water pools, must be dip sealed prior to installation to apply for a performance warranty. The material must be fully submerged for a minimum of 15 seconds.

Industry professionals can contact their local Dry-Treat representative or email info@drytreat.com to enquire about Accredited Applicator training and certification.

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 clean, dry white cotton or other suitable absorbent cloths. Alcohol, methylated spirits or acetone can be used, but take care not to damage paintwork or other coatings.
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. The material must be allowed to cure for at least 2 weeks before it comes into contact with salt water.
11. 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.
12. 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.
13. Clean equipment with methylated spirits, alcohol or acetone
14. IMPORTANT – DIP SEALING: Surface materials which are in regular contact with salt water, including the splash zone around salt water pools, must be dip sealed prior to installation to apply for a performance warranty. The material must be fully submerged for a minimum of 15 seconds.

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

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

120 - 280 sq. ft. per gallon (3 – 7 sq. m. per liter).

SHELF LIFE & STORAGE:

- Best within 24 months of purchase.
- Keep container tightly sealed, in a well-ventilated place, at 36 - 85° Fahrenheit or 2 - 30° Celsius

TECHNICAL DATA

- Active Content: ~40% modified silane and consolidator.
- Specific Gravity: 0.834
- Color: Clear colorless liquid
- Weight: 6.97 lbs / gallon; 0.834 kg / liter
- VOCs:
  - <400 g/L (excluding water) for EPA purposes.
  - <120 g/L (including water) for U.S. state purposes (Low Solids Coating)

COUNTRY OF MANUFACTURE

USA

TEST RESULTS

Consolidation Test - AS/NZS4456.10 – resistance of masonry to salt attack:

- Limestone - >99% reduction of weight loss from salt water corrosion
- Sandstone – >99.9% reduction of weight loss from salt water corrosion

TYPICAL PENETRATION

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

ADVANCED APPLICATION GUIDELINES:

- **Limitations:**
  - S-TECH 40SK™ should never be diluted
  - S-TECH 40SK™ 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.

- **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):** S-TECH 40Sk™ is only designed for highly porous surfaces and is not recommended for dense materials.
- **Excess product (product residue):**
    - It is VERY IMPORTANT to thoroughly remove all product residue from a surface before it dries as the consolidator can be very difficult to remove once cured.
    - 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
Bluestone (USA Boston Bluestone)	200	5
Brick	240	6
Poured Concrete Medium	240	6
Concrete Paver (dry pressed)	160	4
Concrete Paver (wet cast)	240	6
Coral Stone	200	5
Grout Lines	1200 linear feet	90 linear meters
Limestone Honed - Dense	240	6
Limestone Honed - Porous	200	5
Limestone around salt water pool	Dip Seal	
Saltillo	200	5
Sandstone (Indian, hard)	240	6
Sandstone (soft)	160	4
Sandstone around salt water pool	Dip Seal	
Terracotta porous	200	5
Travertine honed	280	7
Travertine around salt water pool	Dip Seal	

TRANSPORT

Proper shipping name: Flammable liquid, n.o.s. (Contains acetone). Dangerous Class: 3 UN Number: 1993 Packing Group: II

Made in USA

WARNING

Highly flammable liquid and vapor. Harmful if inhaled. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. Harmful to aquatic life with long lasting effects.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only outdoors or in a well-ventilated area. Ground container and receiving equipment. Use explosion-proof electrical safe equipment.

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.

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.

20 YEAR WARRANTY

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 STAIN-PROOF™, 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.

S-TECH 40M™

40% SILANE-BASED, IMPREGNATING WATER REPELLENT

OPTIMIZED TO PROVIDE SUPERIOR PROTECTION FOR MASONRY, INCLUDING BRICK, CONCRETE, NATURAL STONE AND TERRACOTTA.

S-TECH 40M™ is a fully breathable, modified silane impregnator which penetrates deeply and provides superior water repellent. S-TECH 40M™ 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 40M™ 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 40M™ 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 10 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.

10 YEAR WARRANTY

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 10 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
13. **Warning:** Sealer will not prevent acid etching or physical wear of the surface and may cause some darkening

ADVANCED APPLICATION GUIDELINES

- **Limitations:**
  - S-TECH 40M™ should never be diluted
  - S-TECH 40M™ 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: ~40% modified silane plus optimizers.
- Specific Gravity: 0.826
- Color: Clear colorless liquid
- Weight: 6.89 lbs / gallon; 0.826 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: >90%
- Reduction in absorption of NaCl solution after 72 hour immersion: >95%

ASTM C67 RILEM Tube Test - Water Absorption of Brick

- Reduction of water absorption after 24 hours: ~96% (>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 STAIN-PROOF™, 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

Proper shipping name: Flammable liquid, n.o.s. (Contains acetone). Dangerous Class: 3 UN Number: 1993 Packing Group: II

Made in USA

WARNING

Highly flammable liquid and vapor. Harmful if inhaled. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. Harmful to aquatic life with long lasting effects.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. use only outdoors or in a well-ventilated area. Ground container and receiving equipment. Use explosion-proof electrical safe equipment.

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.

S-TECH CONCREME™

80% SILANE IMPREGNATING CREAM

OPTIMAL PROTECTION FOR ENGINEERED CONCRETE AGAINST WATER AND CHLORIDE ION INGRESS.

S-TECH CONCREME™ water based, fully breathable, 80% silane cream, penetrates deeply into engineered concrete and forms permanent chemical bonds inside the pores to provide optimal, long lasting water repellence and protection against the ingress of water and dissolved chloride ions.

It is the ideal preventative measure to maintain the condition and prolong the life of concrete structures against common forms of damage caused by water or salts, including: Efflorescence and leaching of 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:

High rise concrete structures, parking garages, highways, overpasses, bridges, wharfs, jetties.

Especially important for the protection of concrete structures in a salt water or freeze-thaw environment or where de-icing salts are used.

SUITABLE SURFACES:

Engineered / structural / poured concrete

WARRANTY:

A 30 year per 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.

30 YEAR WARRANTY

BENEFITS:

- Longer dwell time maximizes penetration, bonding and water repellence
- Premium protection against freeze-thaw / salt water spalling, efflorescence, picture framing and other common damage caused by water and chloride ion ingress
- A 30 year per performance warranty is available – see Warranty section for details.
- Easier application particularly on vertical surfaces and overhangs
- Water-based emulsion for lower VOC <329 g/l – meets SCAQMD rule 1113 for reactive penetrating sealers, within 5 miles of the ocean or above 4000ft on reinforced concrete structures.
- 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.)
- Retards reinforcement corrosion (even in carbonated concrete)
- Reduces alkali aggregate reactions
- Non film forming so it cannot flake or peel and is resistant to UV
- Studies have demonstrated that high performance silanes can extend the service life of reinforced concrete structures by over 100 years
- 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 gloves and overalls to protect skin
3. Ensure surfaces to be treated are dry, clean and free of residues
4. Surface temperature should be 40 - 95°F / 5 - 35°C
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. Generously apply the product using a high nap roller or low pressure sprayer with a fan spray nozzle which is suitable for applying creams / emulsions
8. Ideal application rate to is 1 gallon per 120 sq feet or 1 liter per 3 sq meters per coat, but will vary with surface porosity and depth of penetration required.
9. For additional protection a second coat can be applied a minimum of 6 hours after the first coat
10. 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 CONCREME™ should never be diluted
  - S-TECH CONCREME™ should only be used on exposed concrete 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 permanent covalent bonds within the treated material. If the silane is made to react before it finds suitable sites inside the concrete, then it cannot bond inside the pores of the concrete and performance and lifespan can be affected. For this reason it is important never to dilute the product or apply it to concrete which is wet (on the surface or inside the material).
- **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.
- Trafficable surfaces will be a slip hazard while surface is wet

PACK SIZE

- USA and Asia Pacific – 5 gallon (18.9 liter), 54 gallon (204.5 liters)
- Europe – 5 gallon (18.9 liter)

YIELD

120 – 240 sq. feet / gallon (3 – 6 sq. meters / liter)

SHELF LIFE & STORAGE:

- Use product within 12 months of purchase.
- Keep container tightly sealed, in a well-ventilated place, at 36 - 85°F or 2 - 30°C
- Product is NOT freeze-thaw stable.

TECHNICAL DATA

- Active Content: 80% n-Octyltriethoxysilane in a water-based emulsion
- Specific Gravity: 0.89
- Color: White to light straw yellow cream
- Weight: 7.42 lbs / gallon; 0.89 kg / liter
- VOCs: < 329 g/liter
- pH: > 5.5

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 hours immersion: ~95%
- Reduction in absorption of NaCl solution after 72 hours immersion: ~96%

TYPICAL PENETRATION

5 - 10mm depending on application rate and concrete porosity.

- **Applying the right amount of product consistently on a large area:**
  - 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 roll or 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 using a second coat, apply perpendicular to the first coat, to ensure all areas of the surfaces receive a consistent amount of product.
- **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.

TOTAL APPLICATION RATES

- 120 - 240 sq feet per gallon / 3 – 6 sq meters per Liter.
- Optimal application rate: For marine / freeze-thaw environments or where de-icing salts are used, the recommended application rate is 120 sq feet per gallon / 3 sq meters per liter.
- Higher application rates give deeper penetration and a higher concentration of silane inside the concrete which gives better and longer lasting performance.

TRANSPORT

Not regulated for transport of dangerous goods: DOT (Road), IMDG (Ocean), IATA (Air) Transport.

Suitable for use throughout USA

MADE IN USA

WARNING

Do not take internally. Avoid contact with eyes and skin. Avoid inhaling vapours. Wear latex gloves and safety goggles during application. No smoking, keep away from naked lights or ignition sources. Keep container tightly sealed in a cool, well ventilated place. Do not allow product to freeze. Use product before expiry date.

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.
- 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. Wear suitable gloves, protective clothing and safety goggles during application.
- Wash hands thoroughly after application or if contact with skin occurs

S-TECH 100C™

100% SILANE IMPREGNATING SEALER

OPTIMAL PROTECTION FOR ENGINEERED CONCRETE AGAINST WATER AND CHLORIDE ION INGRESS.

S-TECH 100C™ is a fully breathable, 100% octyl silane which penetrates deeply into engineered concrete and forms permanent chemical bonds inside the pores to provide optimal, long lasting water repellence and protection against the ingress of water and dissolved chloride ions.

It is designed to maintain the condition and maximize the life of concrete structures against common forms of damage caused by the ingress of water and salts, including: Efflorescence and leaching of 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:

High rise concrete structures, parking garages, highways, overpasses, bridges, wharfs, jetties.

Especially important for the protection of concrete structures in a salt water or freeze-thaw environment or where de-icing salts are used.

SUITABLE SURFACES:

Engineered / structural / poured concrete

WARRANTY:

A 30 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.

30 YEAR WARRANTY

BENEFITS:

- Penetrates deeply, and forms full covalent bonds inside the pores of the concrete for superior long term water repellence.
- Premium protection against freeze-thaw / salt water spalling, efflorescence, picture framing and other common damage caused by water and chloride ion ingress
- A 30 year performance warranty is available – see Warranty section for details.
- VOC <329g/L - meets SCAQMD rule 1113 for reactive penetrating sealers, within 5 miles of the ocean or above 4000ft on reinforced concrete structures.
- 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.)
- Retards reinforcement corrosion (even in carbonated concrete)
- Reduces alkali aggregate reactions
- Non film forming so it cannot flake or peel and is resistant to UV
- Studies have demonstrated that high performance silanes can extend the service life of reinforced concrete structures by over 100 years
- 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°F / 5 - 35°C
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. Generously apply the product using a low pressure sprayer with a fan spray nozzle working from the lowest sections upwards.
8. Ideal application rate to is 1 gallon per 136 sq. ft. or 1 liter per 3.34 sq. m. per coat, but will vary with surface porosity and depth of penetration required.
9. For additional protection a second coat can be applied a minimum of 6 hours after the first coat
10. 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 100C™ should never be diluted
  - S-TECH 100C™ should only be used on exposed concrete 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 permanent covalent bonds within the treated material. If the silane is made to react before it finds suitable sites inside the concrete, then it cannot bond inside the pores of the concrete and performance and lifespan can be affected. For this reason it is important never to dilute the product or apply it to concrete which is wet (on the surface or inside the material).
- **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.

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

68 – 240 sq. ft. per gallon (1.67 – 6 sq. m. per liter).

SHELF LIFE & STORAGE:

- Use product within 12 months of purchase.
- Keep container tightly sealed, in a well-ventilated place, at 36 - 85°F or 2 - 30°C
- Product is NOT freeze-thaw stable.

TECHNICAL DATA

- Active Content: <99% n-Octyltriethoxysilane. Complies with UK Highways Agency BD 43/03 “The Impregnation of Reinforced and Pre-stressed Concrete Highway Structures Using Hydrophobic Pore-Lining Impregnants” and BS EN 1504- 2:2004 “Products and Systems for the Protection and Repair of Concrete Structures”
- Specific Gravity: 0.88
- Color: Clear colorless liquid
- Weight: 7.34 lbs / gallon; 0.88 kg / liter
- VOCs: <329 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: >95%
- Reduction in absorption of NaCl solution after 72 hour immersion: >97%

TYPICAL PENETRATION

5 - 10mm depending on application rate and concrete porosity.

- **Applying the right amount of product consistently on a large area:**
  - 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 roll or 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 using a second coat, apply perpendicular to the first coat, to ensure all areas of the surfaces receive a consistent amount of product.
- **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.

TOTAL APPLICATION RATES

- 68 – 240 sq. ft. per gallon (1.67 – 6 sq. m. per liter).
- Optimal application rate: For marine / freeze-thaw environments or where de-icing salts are used, the recommended application rate is 68 sq. ft. per gallon (1.67 sq. m. per liter).
- Higher application rates give deeper penetration and a higher concentration of silane inside the concrete which gives better and longer lasting performance.

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.

S-TECH 100Cci™

CONCENTRATED SILANE IMPREGNATOR WITH CORROSION INHIBITOR

OPTIMAL PROTECTION FOR ENGINEERED CONCRETE AGAINST WATER AND CHLORIDE ION INGRESS.

S-TECH 100Cci™ is a fully breathable, 100% octyl silane which penetrates deeply into engineered concrete and forms permanent chemical bonds inside the pores to provide optimal, long lasting water repellence and protection against the ingress of water and dissolved chloride ions. The corrosion inhibitor provides additional protection to the embedded steel rebar renforcement.

It is designed to maintain the condition and maximize the life of concrete structures against common forms of damage caused by the ingress of water and salts, including: Efflorescence and leaching of 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:

High rise concrete structures, parking garages, highways, overpasses, bridges, wharfs, jetties.

Especially important for the protection of concrete structures in a salt water or freeze-thaw environment or where de-icing salts are used.

SUITABLE SURFACES:

Engineered / structural / poured concrete

WARRANTY:

A 30 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.

30 YEAR WARRANTY

BENEFITS:

- Penetrates deeply, and forms full covalent bonds inside the pores of the concrete for superior long term water repellence.
- Premium protection against freeze-thaw / salt water spalling, efflorescence, picture framing and other common damage caused by water and chloride ion ingress
- Contains amine corrosion inhibitor to provide additional protection for the reinforcing steel rebar against oxidation.
- A 30 year performance warranty is available – see Warranty section for details.
- VOC <329g/L - meets SCAQMD rule 1113 for reactive penetrating sealers, within 5 miles of the ocean or above 4000ft on reinforced concrete structures.
- 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.)
- Retards reinforcement corrosion (even in carbonated concrete)
- Reduces alkali aggregate reactions
- Non film forming so it cannot flake or peel and is resistant to UV
- Studies have demonstrated that high performance silanes can extend the service life of reinforced concrete structures by over 100 years
- 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°F / 5 - 35°C
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. Generously apply the product using a low pressure sprayer with a fan spray nozzle working from the lowest sections upwards.
8. Ideal application rate to is 1 gallon per 136 sq. ft. or 1 liter per 3.34 sq. m. per coat, but will vary with surface porosity and depth of penetration required.
9. For additional protection a second coat can be applied a minimum of 6 hours after the first coat
10. 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 100Cci™ should never be diluted
  - S-TECH 100Cci™ should only be used on exposed concrete 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 permanent covalent bonds within the treated material. If the silane is made to react before it finds suitable sites inside the concrete, then it cannot bond inside the pores of the concrete and performance and lifespan can be affected. For this reason it is important never to dilute the product or apply it to concrete which is wet (on the surface or inside the material).
- **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.

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

68 – 240 sq. ft. per gallon (1.67 – 6 sq. m. per liter).

SHELF LIFE & STORAGE:

- Use product within 12 months of purchase.
- Keep container tightly sealed, in a well-ventilated place, at 36 - 85°F or 2 - 30°C
- Product is NOT freeze-thaw stable.

TECHNICAL DATA

- Active Content: >95% n-Octyltriethoxysilane plus amine anti-corrosion inhibitor. Complies with UK Highways Agency BD 43/03 “The Impregnation of Reinforced and Pre-stressed Concrete Highway Structures Using Hydrophobic Pore-Lining Impregnants” and BS EN 1504-2:2004 “Products and Systems for the Protection and Repair of Concrete Structures”
- Specific Gravity: 0.88
- Color: light yellow-brown, clear liquid
- Weight: 7.34 lbs / gallon; 0.88 kg / liter
- VOCs: <329 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: >95%
- Reduction in absorption of NaCl solution after 72 hour immersion: >97%

TYPICAL PENETRATION

5 - 10mm depending on application rate and concrete porosity.

- **Applying the right amount of product consistently on a large area:**
  - 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 roll or 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 using a second coat, apply perpendicular to the first coat, to ensure all areas of the surfaces receive a consistent amount of product.
- **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.

TOTAL APPLICATION RATES

- 68 – 240 sq. ft. per gallon (1.67 – 6 sq. m. per liter).
- Optimal application rate: For marine / freeze-thaw environments or where de-icing salts are used, the recommended application rate is 68 sq. ft. per gallon (1.67 sq. m. per liter).
- Higher application rates give deeper penetration and a higher concentration of silane inside the concrete which gives better and longer lasting performance.

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.

Product Selector

	STAIN-PROOF M™	S-TECH 40SK™	S-TECH 100M™	S-TECH 40M™	S-TECH CONCREME™	S-TECH 100C™	S-TECH 100Cci™
Product Attributes							
Water repellence	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Oil Repellence*	Yes						
Consolidation		Yes					
Color Enhancement							
Apply over impregnated surface	Yes		Yes	Yes	Yes	Yes	Yes
Breathable	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Warranty	15 Years	15 Years	20 Years	10 Years	30 Years	30 Years	30 Years
Surface Protection against							
Efflorescence	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Freeze-Thaw Spalling	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Salt Spalling	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Picture Framing	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Rebar Corrosion Inhibitor							Yes
Damp Migration	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Materials							
Brick	Yes	Yes	Yes	Yes			
Engineered Concrete					Yes	Yes	Yes
Precast Concrete	Yes	Yes	Yes	Yes			
Terracotta/Saltillo	Yes	Yes	Yes	Yes			
Cultured Stone	Yes	Yes	Yes	Yes			
Grout	Yes		Yes	Yes			
Natural Stones:							
Basalt	Yes		Yes	Yes			
Bluestone	Yes		Yes	Yes			
Granite	Yes		Yes	Yes			
Limestone	Yes	Yes	Yes	Yes			
Travertine	Yes	Yes	Yes	Yes			
Sandstone	Yes	Yes	Yes	Yes			
Marble	Yes		Yes	Yes			
Slate	Yes		Yes	Yes			
Coral Stone	Yes	Yes	Yes	Yes			

NOTE: Vertical surfaces require premium water repellence only.

*Horizontal surfaces exposed to food and other spills may also need oil repellence.

Typical Applications

	S-TECH 100M	S-TECH 40M	STAIN-PROOF M	S-TECH 40SK	S-TECH CONCREME	S-TECH 100C	S-TECH 100Cci
Blockwork/Brickwork	✓	✓	✓	✓			
Bridges					✓	✓	✓
Building Facades/Cladding	✓	✓	✓	✓			
Car Parks					✓	✓	✓
Paving & Driveways	✓	✓	✓	✓	✓	✓	✓
Damp Course Injection					✓	✓	
High Rise Structures					✓	✓	✓
Highways					✓	✓	✓
Masonry Restoration	✓	✓	✓	✓			
Patio/Terraces	✓	✓	✓	✓			
Rail Bridge Decks					✓	✓	✓
Rendering/Stucco	✓	✓	✓	✓			
Swimming Pool Surrounds	✓	✓	✓	✓			
Walkways	✓	✓	✓	✓	✓	✓	✓
Wharfs & Jetties					✓	✓	✓

Total Application Rates

STAIN-PROOF M™, S-TECH 100M™, S-TECH 40M™

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

S-TECH 40SK™

Surface Type	sq ft/gal.	sqm/L
Bluestone (USA Boston Bluestone)	200	5
Brick	240	6
Poured Concrete Medium	240	6
Concrete Paver (dry pressed)	160	4
Concrete Paver (wet cast)	240	6
Coral Stone	200	5
Grout Lines	1200 linear feet	90 linear meters
Limestone Honed - Dense	240	6
Limestone Honed - Porous	200	5
Limestone around salt water pool	Dip Seal	
Saltillo	200	5
Sandstone (Indian, hard)	240	6
Sandstone (soft)	160	4
Sandstone around salt water pool	Dip Seal	
Terracotta porous	200	5
Travertine honed	280	7
Travertine around salt water pool	Dip Seal	

ENGINEREED CONCRETE

S-TECH CONCREME™	120-240sq ft/gallon	3 - 6 sq meters/L
S-TECH 100C™	68-240 sq ft/gallon	1.67 - 6 meters/L
S-TECH 100Cci™	68-240 sq ft/gallon	1.67 - 6 meters/L

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).

DRYTREAT
Excellence in sealing products™

Dry-Treat America
Andover, MA, USA
Ph: 1866 667 5119

Dry-Treat Asia Pacific
Mooney Ponds, VIC, AU
Ph: 1800 675 119

Dry-Treat Europe
United Kingdom
Ph: 0800 096 4760

www.drytreat.com info@drytreat.com

Dry-Treat is a brand of Innovative Chemical Products (ICP), Inc., Construction Products Division

ICP CONSTRUCTION