

Technical Bulletin

# 3M™ Stone Floor Protection System: Installation & Maintenance Protocol Options

## Description

The 3M™ Stone Floor Protection System is a complete floor care process that restores the natural beauty of porous stone and produces an exceptional aesthetic appearance. The system includes three steps:

- Restore
- Protect
- Maintain

This document describes four options to address a variety of maintenance and aesthetic requirements, summarized in Table 1.

		CONFIGURATION RESULTS					SYSTEM SOLUTIONS				
		Appearance*		Initial Cost	Ongoing Cost	Stain Resistance	High Traction Rating	RESTORE	PROTECT	MAINTAIN	
		Gloss	DOI							Burnishing	Cleaning
SYSTEM OPTIONS	A	50-60	80-90	\$\$\$	\$	✓					
	B	45-55	80-85	\$\$c	\$c	✓					
	C	40-50	40-50	\$	\$	✓					
	D	30-40	70-80	\$\$	\$c						

\* Typical values produced on concrete flooring. A variety of factors will impact the actual results.

Table 1. Summary of 3M™ Stone Protection System options.


## Application

The 3M™ Stone Floor Protection System may be used on concrete, marble, terrazzo, and other porous stone surfaces.

Scotchgard™ Stone Floor Protector should NOT be used on the following types of flooring:

- Floors with extremely uneven tiles
- Granite
- Black marble



- 
- Ceramic (including porcelain, quarry, Mexican tile, etc.)
  - Textured stone (such as slate)
  - Installation environments where air temperature is below 50 degrees Fahrenheit

Caution should be used when using Scotchgard™ Stone Floor Protector on flooring that is:

- Stained concrete (can leave appearance of non-uniform staining due to removal of top layer of surface)
- Travertine (increased dry time)
- Crystallized marble (must remove crystallized layer using 3M™ Trizact™ Diamond HX Disc first)
- Grout lines greater than 1/4 inch (often sanded grout)

3M™ Trizact™ Diamond HX Discs and 3M™ Stone Floor Protection System are NOT RECOMMENDED for use in the following areas:

- Where flooring is often exposed to water (outdoor sidewalks, swimming pool areas, and carwashes, etc).
- Where flooring is often dusty or dirty, (wood shops, manufacturing sites, playgrounds, etc).
- Where cleaning and dust mopping are not performed regularly (garages, dock areas, etc.)
- Where solvent degreasers are commonly used (kitchens, meat processing plants, maintenance bays, etc.)




## Option A: Full System

### Restore:

1. Strip all old finish from floor (follow finish manufacturer's recommended procedure).
2. If the floor is uncoated, clean thoroughly using a blue scrubbing pad and thoroughly rinse floor with water.
3. Allow floor to dry thoroughly.
4. If flooring is rough to the touch or has pronounced scratching, wet floor and scrub with 3M™ Trizact™ Diamond HX Gold Disc, coarse grade, and complete a minimum of 6 passes. After six passes use the floor squeegee to move away the slurry and ensure that the floor has a consistent appearance (scratches and pitting have been removed). If floor does not have a consistent, uniform appearance, complete another six passes.
5. Wet vacuum and mop to remove all slurry and dust.
6. Wet floor and scrub with 3M™ Trizact™ Diamond HX Red Disc, medium grade, and complete a minimum of 6 passes. Note: if 3M™ Trizact™ Diamond HX Gold Discs have been used, only 4 passes with the red discs may be required. After completing the required number of passes, use the floor squeegee to move away the slurry and ensure that the floor has a consistent appearance (scratches and pitting have been removed). If floor does not have a consistent appearance, complete another six passes.
7. Always wet vacuum and mop before moving to the next series of 3M™ Trizact™ Diamond HX Discs. This is to ensure that any abrasive that may have come loose during the previous step is removed from the floor and does not remain to cause scratching during the next step. Note: Failure to remove slurry between steps can also cause excessive wear of discs used in the following steps.
8. Wet floor and scrub with 3M™ Trizact™ Diamond HX Blue Disc, fine grade, and complete a minimum of 6 passes. After six passes use the floor squeegee to move away the slurry and ensure that the floor has a consistent appearance (scratches and pitting have been removed). If floor does not have a consistent appearance, complete another six passes. NOTE: Neutral cleaner may be used mixed with the water to reduce friction if needed.
9. Wet vacuum and mop to remove all slurry and dust.
10. Burnish the floor with a Scotch-Brite™ Purple Diamond Floor Pad Plus using a minimum of four passes. No water should be used during this process.
11. Clean expansion joints (terrazzo) using neutral cleaner and red pad with swing machine to eliminate metal dust.

### Protect:

1. Dust floor with 3M™ Easy Trap Duster to ensure all dust, hair, grit, and debris has been removed.
2. Apply a pool of Scotchgard™ Stone Floor Protector to the floor and saturate applicator head. When applicator has been saturated, wipe area clear of product and note the color of the flooring where the pool was laid. The darkness of this area is the same darkness the rest of the floor should turn during application of the first coat.
3. Apply a thin even coating of product to floor. Make sure that all drips or heavy areas are addressed while applying. Proper coating thickness should NOT have any milky appearance to it. Coating method tip: Treat the application like you are applying product and then trying to wipe it off.
4. When coating is complete allow time to fully dry. A more porous floor will result in longer time for the coating to fully dry. It must be dry to the touch before it is walked on or further processed. Wait a minimum of 15 minutes after floor is dry to the touch.

- 
5. Burnish for a minimum of 6 passes using a Scotch-Brite™ Purple Diamond Floor Pad Plus.
  6. Dust floor with 3M™ Easy Trap Duster to ensure all dust, hair, grit, and debris has been removed.
  7. Apply another (second) thin even coating of product to floor following the same process used in steps 3-6.
  8. Allow coating to dry and burnish for a minimum of 6 passes using a Scotch-Brite™ Purple Diamond Floor Pad Plus.
  9. Dust with 3M™ Easy Trap Duster to remove dust and pad debris.

**Maintain:**

1. Dust mop with 3M™ Doodleduster™ Cloth or 3M™ Easy Trap Duster.
2. Damp mop using 3M™ Neutral Cleaner and a flat mop or string mop or auto scrub as necessary using a 3M™ Neutral Cleaner and 3M™ 5100 Red Floor Pad on an auto scrubbing machine.
3. Periodically burnish the floor using a Scotch-Brite™ Purple Diamond Floor Pad Plus to maintain gloss. A suggested burnishing schedule is:
  - a. High traffic areas: 1 to 2 times per week
  - b. Medium traffic areas: 3 to 4 times per month
  - c. Low traffic areas: 1 to 2 times per month

When traffic lanes are no longer returned to gloss by burnishing, an additional application of Scotchgard™ Stone Floor Protector should be applied (see the “Protect” section for instructions). A typical recoating schedule is:

- a. High traffic areas once every 3-4 months
- b. Medium traffic areas should once every 6 months
- c. Light traffic areas once every 12 months

**Tips for cleaning:**

- To ensure proper slip resistance, flooring should be cleaned regularly to keep dust, sand, oils, and other contaminants off the surface.
- Do NOT use acidic cleaners, cleaners that contain citrus (d-limonene), 2-butoxyethanol (butyl cellulolve), amine based cleaners, isopropyl alcohol, solvent based cleaners, degreasers, or non-neutral cleaners.
- Do NOT use spray buff products or chemical dust mop treatments.



## Option B: No Burnishing

### Restore:

1. Strip all old finish from floor (follow finish manufacturer's recommended procedure).
2. If the floor is uncoated, clean thoroughly using a blue scrubbing pad and thoroughly rinse floor with water.
3. Allow floor to dry thoroughly.
4. If flooring is rough to the touch or has pronounced scratching, wet floor and scrub with 3M™ Trizact™ Diamond HX Gold Disc, coarse grade, and complete a minimum of 6 passes. After six passes use the floor squeegee to move away the slurry and ensure that the floor has a consistent appearance (scratches and pitting have been removed). If floor does not have a consistent, uniform appearance, complete another six passes.
5. Wet vacuum and mop to remove all slurry and dust.
6. Wet floor and scrub with 3M™ Trizact™ Diamond HX Red Disc, medium grade, and complete a minimum of 6 passes. Note: If 3M™ Trizact™ Diamond HX Gold Discs have been used, only 4 passes with the red discs may be required. After completing the required number of passes, use the floor squeegee to move away the slurry and ensure that the floor has a consistent appearance (scratches and pitting have been removed). If floor does not have a consistent appearance, complete another six passes.
7. Always wet vacuum and mop before moving to the next series of 3M™ Trizact™ Diamond HX Discs. This is to ensure that any abrasive that may have come loose during the previous step is removed from the floor and does not remain to cause scratching during the next step. Note: Failure to remove slurry between steps can also cause excessive wear of discs used in the following steps.
8. Wet floor and scrub with 3M™ Trizact™ Diamond HX Blue Disc, fine grade, and complete a minimum of 6 passes. After six passes use the floor squeegee to move away the slurry and ensure that the floor has a consistent appearance (scratches and pitting have been removed). If floor does not have a consistent appearance, complete another six passes. NOTE: Neutral cleaner may be used mixed with the water to reduce friction if needed.
9. Wet vacuum and mop to remove all slurry and dust.
10. Clean expansion joints (terrazzo) using neutral cleaner and red pad with swing machine to eliminate metal dust

### Protect:

1. Dust floor with 3M™ Easy Trap Duster to ensure all dust, hair, grit, and debris has been removed.
2. Apply a pool of Scotchgard™ Stone Floor Protector to the floor and saturate applicator head. When applicator has been saturated, wipe area clear of product and note the color of the flooring where the pool was laid. The darkness of this area is the same darkness the rest of the floor should turn during application of the first coat.
3. Apply a thin even coating of product to floor. Make sure that all drips or heavy areas are addressed while applying. Proper coating thickness should NOT have any milky appearance to it. Coating method tip: Treat the application like you are applying product and then trying to wipe it off.
4. When coating is complete allow time to fully dry. A more porous floor will result in longer time for the coating to fully dry. It must be dry to the touch before it is walked on or further processed. Wait a minimum of 15 minutes after floor is dry to the touch.
5. Dust floor with 3M™ Easy Trap Duster to ensure all dust, hair, grit, and debris has been removed.
6. Apply another (second) thin even coating of product to floor following the same process used in steps 2-5.





**Maintain:**

1. Dust mop with 3M™ Doodleduster™ Cloth or 3M™ Easy Trap Duster.
2. Damp mop using 3M™ Neutral Cleaner and a flat mop or string mop. For maximum gloss, autoscrubbing is recommended as necessary using a 3M™ Neutral Cleaner and Scotch-Brite™ Purple Diamond Floor Pad Plus. Maximum gloss will appear after approximately 10 autoscrubbing passes.
3. When traffic lanes are no longer returned to acceptable gloss an additional application of Scotchgard™ Stone Floor Protector should be applied (see the “Protect” section for instructions). A typical recoating schedule is:
  - a. High traffic areas once every 3-4 months
  - b. Medium traffic areas should once every 6 months
  - c. Light traffic areas once every 12 months

**Tips for cleaning:**

- To ensure proper slip resistance, flooring should be cleaned regularly to keep dust, sand, oils, and other contaminants off the surface.
- Do NOT use acidic cleaners, cleaners that contain citrus (d-limonene), 2-butoxyethanol (butyl cellusolve), amine based cleaners, isopropyl alcohol, solvent based cleaners, degreasers, or non-neutral cleaners.
- Do NOT use spray buff products or chemical dust mop treatments.

Note: Option B without burnishing is intended for concrete floors. Floors without calcium (for example epoxy terrazzo) should follow Option A.





## Option C: No Polishing with 3M™ Trizact™ Diamond HX Discs

### Restore:


1. Strip all old finish from floor (follow finish manufacturer's recommended procedure).
2. If the floor is uncoated, clean thoroughly using a blue scrubbing pad and thoroughly rinse floor with water.
3. Allow floor to dry thoroughly.
4. If the floor is uncoated, clean thoroughly using a blue scrubbing pad and thoroughly rinse floor with water.
5. Allow floor to dry thoroughly.
6. Burnish the bare floor using a Scotch-Brite™ Sienna Diamond Floor Pad Plus.
7. Burnish the bare floor with the Scotch-Brite™ Purple Diamond Floor Pad Plus.

### Protect:

1. Dust floor with 3M™ Easy Trap Duster to ensure all dust, hair, grit, and debris has been removed.
2. Apply a pool of Scotchgard™ Stone Floor Protector to the floor and saturate applicator head. When applicator has been saturated, wipe area clear of product and note the color of the flooring where the pool was laid. The darkness of this area is the same darkness the rest of the floor should turn during application of the first coat.
3. Apply a thin even coating of product to floor. Make sure that all drips or heavy areas are addressed while applying. Proper coating thickness should NOT have any milky appearance to it. Coating method tip: Treat the application like you are applying product and then trying to wipe it off.
4. When coating is complete allow time to fully dry. A more porous floor will result in longer time for the coating to fully dry. It must be dry to the touch before it is walked on or further processed. Wait a minimum of 15 minutes after floor is dry to the touch.
5. Allow coating to dry and burnish for a minimum of 6 passes using a Scotch-Brite™ Purple Diamond Floor Pad Plus.
6. Dust floor with 3M™ Easy Trap Duster to ensure all dust, hair, grit, and debris has been removed.
7. Apply another (second) thin even coating of product to floor following the same process used in steps 3-6.
8. Allow coating to dry and burnish for a minimum of 6 passes using a Scotch-Brite™ Purple Diamond Floor Pad Plus.
9. Dust with 3M™ Easy Trap Duster to remove dust and pad debris.

### Maintain:

1. Dust mop with 3M™ Doodleduster™ Cloth or 3M™ Easy Trap Duster.
2. Damp mop using 3M™ Neutral Cleaner and a flat mop or string mop or auto scrub as necessary using a 3M™ Neutral Cleaner and 3M™ 5100 Red Floor Pad on an auto scrubbing machine.
3. Periodically burnish the floor using a Scotch-Brite™ Purple Diamond Floor Pad Plus to maintain gloss. A suggested burnishing schedule is:
  - a. High traffic areas: 1 to 2 times per week
  - b. Medium traffic areas: 3 to 4 times per month
  - c. Low traffic areas: 1 to 2 times per month



When traffic lanes are no longer returned to gloss by burnishing, an additional application of Scotchgard™ Stone Floor Protector should be applied (see the “Protect” section for instructions). A typical recoating schedule is:

- a. High traffic areas once every 3-4 months
- b. Medium traffic areas should once every 6 months
- c. Light traffic areas once every 12 months

Tips for cleaning:

- To ensure proper slip resistance, flooring should be cleaned regularly to keep dust, sand, oils, and other contaminants off the surface.
- Do NOT use acidic cleaners, cleaners that contain citrus (d-limonene), 2-butoxyethanol (butyl cellusolve), amine based cleaners, isopropyl alcohol, solvent based cleaners, degreasers, or non-neutral cleaners.
- Do NOT use spray buff products or chemical dust mop treatments.





## Option D: No Protection with Scotchgard™ Stone Floor Protector


### Restore:

1. Strip all old finish from floor (follow finish manufacturer's recommended procedure).
2. If the floor is uncoated, clean thoroughly using a blue scrubbing pad and thoroughly rinse floor with water.
3. Allow floor to dry thoroughly.
4. If flooring is rough to the touch or has pronounced scratching, wet floor and scrub with 3M™ Trizact™ Diamond HX Gold Disc, coarse grade, and complete a minimum of 6 passes. After six passes use the floor squeegee to move away the slurry and ensure that the floor has a consistent appearance (scratches and pitting have been removed). If floor does not have a consistent, uniform appearance, complete another six passes.
5. Wet vacuum and mop to remove all slurry and dust.
6. Wet floor and scrub with 3M™ Trizact™ Diamond HX Red Disc, medium grade, and complete a minimum of 6 passes. Note: If 3M™ Trizact™ Diamond HX Gold Discs have been used, only 4 passes with the red discs may be required. After completing the required number of passes, use the floor squeegee to move away the slurry and ensure that the floor has a consistent appearance (scratches and pitting have been removed). If floor does not have a consistent appearance, complete another six passes.
7. Always wet vacuum and mop before moving to the next series of 3M™ Trizact™ Diamond HX Disc. This is to ensure that any abrasive that may have come loose during the previous step is removed from the floor and does not remain to cause scratching during the next step. Note: Failure to remove slurry between steps can also cause excessive wear of discs used in the following steps.
8. Wet floor and scrub with 3M™ Trizact™ Diamond HX Blue Disc, fine grade, and complete a minimum of 6 passes. After six passes use the floor squeegee to move away the slurry and ensure that the floor has a consistent appearance (scratches and pitting have been removed). If floor does not have a consistent appearance, complete another six passes. NOTE: Neutral cleaner may be used mixed with the water to reduce friction if needed.
9. Wet vacuum and mop to remove all slurry and dust.
10. Burnish the floor with a Scotch-Brite™ Purple Diamond Floor Pad Plus using a minimum of four passes. No water should be used during this process.
11. Clean expansion joints (terrazzo) using neutral cleaner and red pad with swing machine to eliminate metal dust

### Maintain:

1. Dust mop with 3M™ Doodleduster™ Cloth or 3M™ Easy Trap Duster.
2. Damp mop using 3M™ Neutral Cleaner and a flat mop or string mop or auto scrub as necessary using a 3M™ Neutral Cleaner and Scotch-Brite™ Purple Diamond Floor Pad Plus. Maximum gloss will appear after approximately 10 autoscrubbing passes.
3. When traffic lanes are no longer returned to gloss by, restore by:
  1. Wet floor and scrub with 3M™ Trizact™ Diamond HX Blue Disc, fine grade, and complete a minimum of 1-3 passes. After 3 passes use the floor squeegee to move away the slurry and ensure that the floor has a consistent appearance (scratches and pitting have been removed). If floor does not have a consistent appearance, complete another six passes. NOTE: Neutral cleaner may be used mixed with the water to reduce friction if needed.
  2. Wet vacuum and mop to remove all slurry and dust.





Tips for cleaning:

- To ensure proper slip resistance, flooring should be cleaned regularly to keep dust, sand, oils, and other contaminants off the surface.
- Do NOT use acidic cleaners, cleaners that contain citrus (d-limonene), 2-butoxyethanol (butyl cellusolve), amine based cleaners, isopropyl alcohol, solvent based cleaners, degreasers, or non-neutral cleaners.
- Do NOT use spray buff products or chemical dust mop treatments.



**WARNING**

Because the user knows and controls factors affecting the performance and safe use of a 3M™ Floor Pad and 3M™ Trizact™ Diamond HX Disc, user is ultimately responsible for determining these products are suitable for user's flooring and application. Some floors may release material such as dust that may cause lung damage and other injury to user or bystanders. Eye, skin and/or respiratory personal protection equipment may be appropriate to reduce the risks associated with exposure to such airborne material.

Depending on local regulations, concrete and stone slurries generated from polishing operations may be considered regulated waste. Improper disposal may cause damage to the environment. There are concrete washout products and services for slurry disposal from job sites that may be available in your area. Regardless of the waste disposal method you choose, please follow federal, state and local regulations.

## 3M Branch Sales Offices

### ANCHORAGE

11151 Calaska Circle  
Anchorage, AK 99515

Telephone: 907/522-5200  
Facsimile 907/522-1645

### HONOLULU

4443 Malaai Street  
Honolulu, HI 96818  
Mail to: P.O. Box 30048  
Honolulu, HI 96820

Telephone: 808/422-2721  
Facsimile 808/422-9557

### CONTINENTAL UNITED STATES

Customer Service Department  
3M Center Building 223-5S-07  
St. Paul, MN 55144-1000

Order Entry 1-800-852-9722  
Facsimile 1-800-447-0408

### CANADA

1840 Oxford Street East  
London, Ontario, Canada  
N5V 3G2  
Mail to: P.O. Box 5757  
London, Ontario, Canada  
N6A 4T1

Telephone: 800/364-3577  
Facsimile: 800/479-4453

## Important Notice to User

**Technical Information:** The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

**Product Use:** Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

**Warranty and Limited Remedy:** 3M warrants that each 3M product will be free from defects in material and manufacture for 90 days from the date of purchase from 3M's authorized distributor. 3M MAKES NO OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. If a 3M product does not conform to this warranty, the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price. **Limitation of Liability:** Except where prohibited by law, 3M will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted.



### Building and Commercial Services Division

3M Center  
St. Paul, MN 55144-1000  
[www.3M.com/facility](http://www.3M.com/facility)

3M, Scotch-Brite, Scotchgard, Trizact and the Doodlebuster are trademarks of 3M. Used under license in Canada.  
NFSI logo is a registered trademark of National Floor Safety Institute.  
© 3M 2013. All rights reserved