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 three options to address a variety of maintenance and aesthetic requirements, summarized in Table 1.

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

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

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
- Ceramic (including porcelain, glazed, and polished)
- Installation environments where air temperature is below 50 degrees Fahrenheit
Caution should be used when using Scotchgard™ Stone Floor Protector on flooring that is:

- Granite (Do not use 3M™ Trizact™ Diamond Products, use chemical stripping protocol below for removal)
- Textured stone (such as slate - Do not use 3M™ Trizact™ Diamond Abrasive TZ Products, use chemical stripping protocol below for removal)
- 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 Abrasive TZ Product first)
- Grout lines greater than 1/4 inch (often sanded grout)

3M™ Trizact™ Diamond TZ Abrasive Products 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.)

Chemical stripping for removal of Scotchgard™ Stone Floor Protector is suggested on granite and textured stone. Follow the instructions below:

1.) Apply appropriately diluted 3M™ Speed Stripper Concentrate (Product No. 6H) to the surface and allow to dwell for 15 – 20 minutes.
2.) Use a 3M™ Black Stripper Pad 7200 on an autoscrubber or swing machine to remove the coating. Typically, 6 passes are required using a swing machine and 4 passes using an autoscrubber.
3.) Vacuum the floor stripper and emulsified coating off the floor and inspect for any remaining finish. Be careful to remove all floor finish as any remaining finish has potential to be visible after applying Scotchgard™ Stone Floor Protector (In areas where finish remains, repeat steps 1-3)
4.) Always rinse the floor after stripping. Rinse until a hand run over dry floor does not have any white residue on it. Failure to properly rinse a floor can cause adhesion failure, discoloration, hazing, or other failure of Scotchgard™ Stone Floor Protector.
5.) It is recommended to scrub the bare floor using a 3M™ Red Buffer Pad 5100 to remove any residue followed by dusting with 3M™ Easy Trap Duster - sweep and dust Sheets.
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 3M™ Blue Cleaner Pad 5300 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 Abrasive TX Gold product, coarse grade, and complete a minimum of 6 passes (All Trizact™ Abrasive products should be used in conjunction with a 3M™ Red Buffer Pad 5100 per Trizact™ Abrasive product use instructions). 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 Abrasive TZ Red product, medium grade, and complete a minimum of 6 passes. 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 Abrasive products. 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 products used in the following steps.
8. Wet floor and scrub with 3M™ Trizact™ Diamond Abrasive TZ Blue Product, 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: 3M™ 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 3M™ Neutral Cleaner and 3M™ Red Buffer Pad 5100 with swing machine to eliminate metal dust.
Protect:

1. Dust floor with 3M™ Easy Trap Duster - sweep and dust sheets 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 3M™ Easy Shine 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. Apply another (second) thin even coating of product to floor following the same process used in steps 3-4.

6. Allow coating to dry for 30 minutes and burnish for a minimum of 6 passes using a 3M™ Tan Burnish Pad 3400.

7. Dust with 3M™ Easy Trap Duster - sweep and dust sheets to remove dust and pad debris.

Maintain:

1. Dust mop with 3M™ Doodleduster™ Cloth or 3M™ Easy Trap Duster - sweep and dust sheets

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™ Red Buffer Pad 5100 on an auto scrubbing machine.

3. Periodically burnish the floor using a 3M™ Tan Burnish Pad 3400 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, bleach, isopropyl alcohol, solvent based cleaners, degreasers, or non-neutral cleaners.

- Do NOT use spray buff products or chemical dust mop treatments.
Option B: No Polishing with 3M™ Trizact™ Abrasive TZ Diamond Products

Restore:
1. Strip all old finish from floor (follow finish manufacturer’s recommended procedure).
2. If the floor is uncoated, clean thoroughly using a 3M™ Blue Cleaner Pad 5300 and thoroughly rinse floor with water.
3. Allow floor to dry thoroughly.
4. If the floor is uncoated, clean thoroughly using 3M™ Blue Cleaner Pad 5300 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 - sweep and dust sheets 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. Apply another (second) thin even coating of product to floor following the same process used in steps 3-4.
6. Allow coating to dry for 30 minutes and burnish for a minimum of 6 passes using 3M™ Tan Burnish Pad 3400.
7. Dust with 3M™ Easy Trap Duster - sweep and dust sheets to remove dust and pad debris.
Maintain:

1. Dust mop with 3M™ Doodleduster™ Cloth or 3M™ Easy Trap Duster - sweep and dust sheets
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™ Red Buffer Pad 5100 on an auto scrubbing machine.
3. Periodically burnish the floor using a 3M™ Tan Burnish Pad 3400 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, bleach, isopropyl alcohol, solvent based cleaners, degreasers, or non-neutral cleaners.
- Do NOT use spray buff products or chemical dust mop treatments.

Option C: 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 3M™ Blue Cleaner Pad 5300 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 Abrasive TZ Gold Product, coarse grade, and complete a minimum of 6 passes (All Trizact™ Abrasive TZ products should be used in conjunction with a 3M Red Buffer Pad 5100 per 3M™ Trizact™ Abrasive TZ Product use instructions). 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 Abrasive TZ Red Product, medium grade, and complete a minimum of 6 passes. 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 Abrasive TZ Product. 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 products used in the following steps.

8. Wet floor and scrub with 3M™ Trizact™ Diamond Abrasive TZ Blue Product, 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: 3M™ 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 3M™ Neutral Cleaner and 3M™ Red Buffer Pad 5100 with swing machine to eliminate metal dust.

Maintain:

1. Dust mop with 3M™ Doodleduster™ Cloth or 3M™ Easy Trap Duster - sweep and dust sheets.

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.
   a. Periodically burnish the floor using a Scotch-Brite™ Purple Diamond Floor Pad Plus to maintain gloss. A suggested burnishing schedule is: 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, restore by:

1. Wet floor and scrub with 3M™ Trizact™ Diamond Abrasive TZ Blue Product, 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: 3M™ 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.
3. High speed burnish the floor with a Scotch-Brite™ Purple Diamond Floor Pad Plus using a minimum of four passes. No moisture should be used during this process. 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.

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.

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