



Tile & Grout Cleaning Procedures

Ceramic, Porcelain, Quarry, Saltillo

Pre-Cleaning Procedures

1 Identify the type of grout used. The most common type of grout used for tiles is sanded grout. This is made from a blend of Portland cement and sand. You can identify this type of grout by its sandy feel and the fact that it is usually used when grout lines are 3/16" or wider. Epoxy grout is identified by its plastic like appearance that is frequently rounded on top. Unsanded grout is usually only used with natural stone flooring. Your initial inspection of the job should include a thorough examination of the grout. Look for cracks that may be present due to movement of the substrate surface or installation or mixing issues. You should not use a high pressure rotary extraction tool on floors with loose or damaged grout. Sections of grout that have are loose or broken can be blasted out by the high pressure cleaning of hard surface rotary extraction tools and high pressure hard surface wands.

2 Always protect flooring surfaces adjacent to the floor being cleaned from splash and overspray of the cleaning solution.

3 Examine preventative maintenance procedures.

- a. The regular use of walk off mats reduces the tracking of soils from outside. The mats can remove abrasive grit from the bottom of shoes that can damage some hard surface floors.
- b. Sweep or vacuum floors prior to deep cleaning to remove particulate soils. An untreated microfiber dust mop works well for this.



4 For increased efficiency in restorative cleaning, apply tile and grout cleaning solutions cleaners with an in-line injection sprayer to take advantage of solution pressure and heat created by your high performance portable extractor or truckmount. You can also use a "pump-up" pressure sprayer, electric or battery powered sprayer. Apply in even overlapping patterns.





Tile & Grout Cleaning Procedures

Ceramic, Porcelain, Quarry, Saltillo

Daily or Periodic Maintenance and Care

1 Mix
HydraStone
Stone & Tile
Cleaner 1 part
solution to 32 parts
water.



2 Apply with
mop.

3 Extract cleaning solution
with extraction equipment,
auto-scrubber, wet vacuum or
clean mop.





Tile & Grout Cleaning Procedures

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Restorative Deep Cleaning – Heavy soil, grease and oil contamination

1 Mix 1 part **HydraSolv** with 4 parts water into sprayer



2 Apply with sprayer or mop

3 Allow several minutes of dwell time but do not allow solution to dry.

4 Grout lines may need to be agitated with a grout brush.



5 For best results, agitate and extract cleaning solution using high pressure warm or hot water from a **RX20** with a hard surface attachment, an **Evolution RX12** hard surface rotary extraction tool or high pressure hard surface wand. Your portable or truckmounted extractor should maintain a minimum of 800 psi and a maximum of 1200 psi. For more sensitive surfaces, consider using a hard surface wand or simply mop with clean water and rinse. Specialty hand-held hard surface pressure cleaning tools will be very helpful when cleaning countertops, walls, along edges, and in tight places.



6 For faster drying, especially in humid environments, consider the use of an axial, centrifugal, or downdraft air mover after cleaning.

7 After the floor has dried, consider the need for application of **HydraSeal** to grout to protect against staining.





Tile & Grout Cleaning Procedures

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Acid Cleaning – to remove soap scum, hard water deposits, urine deposits, rust, and efflorescence. Lightening and brightening grout lines

1 When cleaning with acid solutions, take special precautions to prevent splashes or spills onto metal surfaces, particularly stainless steel appliances. Metal surfaces, especially stainless steel, may be etched by contact with acid solutions.

2 Apply **HydraVitalize Organic Acid Stone, Tile, and Grout Cleaner**. For normal soiling, mix 1 part solution with 1 parts water. For heavy soiling, mix 1 part solution with 1 part water. For routine maintenance, mix 1 part solution with 10 parts water.



3 Apply solution generously to floor with sprayer or mop

4 Grout lines may need to be agitated with a grout brush.



5 For best results, agitate and extract cleaning solution using high pressure warm or hot water from a **RX20** with a hard surface attachment, an **Evolution RX12** hard surface rotary extraction tool or high pressure hard surface wand. Your portable or truckmounted extractor should maintain a minimum of 800 psi and a maximum of 1200 psi. For more sensitive surfaces, consider using a hard surface wand or simply mop with clean water and rinse. Specialty hand-held hard surface pressure cleaning tools will be very helpful when cleaning countertops, walls, along edges, and in tight places.



Continues



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Tile & Grout Cleaning Procedures

Ceramic, Porcelain, Quarry, Saltillo

Acid Cleaning – to remove soap scum, hard water deposits, urine deposits, rust, and efflorescence. Lightening and brightening grout lines

6 For grout, it is important to neutralize the cleaning solution residue. Mix 1 part **HydraStone** with 32 parts water and apply to grout. Allow several minutes of dwell time and then rinse with water.



7 For faster drying, especially in humid environments, consider the use of an axial, centrifugal, or downdraft air mover after cleaning.

8 After the floor has dried, consider the need for application of **HydraSeal** to the grout to protect from staining.



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Grout Sealing Procedures

NOTE: Reminder – for porcelain, glazed ceramic, and other non-porous man-made tiles, apply sealer to the grout lines only.

1 **HydraSeal Premium Stone, Concrete and Grout Sealer** is ready to use and should be applied straight. Shake thoroughly before application



2 Sealer may be applied to damp surfaces approximately one hour after water has been removed from cleaning procedures. They drier the grout, the better the penetration.



3 Apply sealer with grout line applicator. Squeegee excess onto grout and wipe up remainder off of non-porous tiles. If a white haze develops on tiles, buff off with white polishing pad and a 175 rpm rotary floor machine.



Natural Stone Cleaning & Maintenance Procedures

Flagstone, Limestone, Travertine, Marble, Terrazzo, Serpentine, Slate, or Granite

Pre-Cleaning Procedures

1 Your initial inspection of the job should include a thorough examination of the grout. Look for cracks that may be present due to movement of the substrate surface or installation or mixing issues. Sections of grout that have are loose or broken loose can be blasted out by the high pressure cleaning of hard surface rotary extraction tools and high pressure hard surface wands.

2 Always protect flooring surfaces adjacent to the floor being cleaned from splash and overspray of the cleaning solution.

3 Examine preventative maintenance procedures.

4 The regular use of walk off mats reduces the tracking of soils from outside. The mats can remove abrasive grit from the bottom of shoes that can damage some hard surface floors

5 Sweep or vacuum floors prior to deep cleaning to remove particulate soils. An untreated microfiber dust mop works well for this. **It is absolutely necessary to remove all particulate soiling from a stone surface prior to cleaning if you are going to use a high pressure rotary extraction tool to clean stone. Otherwise, the particulate soiling can become entrapped by the rotary head and severely scratch some stone surfaces, particularly polished marble.**



6 For increased efficiency in restorative cleaning, apply stone solutions cleaners with an in-line injection sprayer to take advantage of solution pressure and heat created by your high performance portable extractor or truckmount. You can also use a “pump-up” pressure sprayer, or electric or battery powered sprayer. Apply in even overlapping patterns.



Natural Stone Cleaning & Maintenance Procedures

Flagstone, Limestone, Travertine, Marble, Terrazzo, Serpentine, Slate, or Granite

Daily or Periodic Maintenance and Care

- 1** Mix **HydraStone** Stone & Tile Cleaner 1 part solution to 32 parts water.



- 2** Apply with mop.

- 3** Extract cleaning solution with extraction equipment, auto-scrubber, wet vacuum or clean mop.



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Natural Stone Cleaning & Maintenance Procedures

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Restorative Deep Cleaning – Heavy soil, grease and oil contamination

1 Sweep or vacuum floors prior to deep cleaning to remove particulate soils. An untreated microfiber dust mop works well for this. **It is absolutely necessary to remove all particulate soiling from a stone surface prior to cleaning if you are going to use a high pressure rotary extraction tool to clean stone. Otherwise, the particulate soiling can become entrapped by the rotary head and severely scratch some stone surfaces, particularly polished marble.**



2 Mix 1 part HydraStone with 16 parts water into sprayer



3 Apply with sprayer or mop

4 Allow several minutes of dwell time but do not allow solution to dry.

5 Grout lines may need to be agitated with a grout brush.



6 For best results, agitate and extract cleaning solution using high pressure warm or hot water from a **RX20** with a hard surface attachment, an **Evolution RX12** hard surface rotary extraction tool or high pressure hard surface wand. Your portable or truckmounted extractor should maintain a minimum of 800 psi and a maximum of 1200 psi. For more sensitive surfaces, consider using a hard surface wand or simply mop with clean water and rinse. Specialty hand-held hard surface pressure cleaning tools will be very helpful when cleaning countertops, walls, along edges, and in tight places.





Natural Stone Cleaning & Maintenance Procedures

Flagstone, Limestone, Travertine, Marble, Terrazzo, Serpentine, Slate, or Granite

Restorative Deep Cleaning – Heavy soil, grease and oil contamination

7 For faster drying, especially in humid environments, consider the use of an axial, centrifugal, or downdraft air mover after cleaning.

8 After the floor has dried, consider the need for application of **HydraSeal** to protect the surface. **HydraSeal** should only be used marble, granite, limestone, bluestone, Saltillo, travertine, and terrazzo. Stone that is prone to efflorescence such as slate should only be sealed with a solvent impregnating sealer.



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Natural Stone Cleaning & Maintenance Procedures – Flagstone, Limestone, Travertine, Marble, Terrazzo, Serpentine, Slate, or Granite

Acid Cleaning – to remove soap scum, hard water deposits, urine deposits, rust, and efflorescence. Lightening and brightening grout lines

1 Sweep or vacuum floors prior to deep cleaning to remove particulate soils. An untreated microfiber dust mop works well for this. **It is absolutely necessary to remove all particulate soiling from a stone surface prior to cleaning if you are going to use a high pressure rotary extraction tool to clean stone. Otherwise, the particulate soiling can become entrapped by the rotary head and severely scratch some stone surfaces, particularly polished marble.**

2 CAUTION – Acid cleaning should not be used on ANY stone floor that contains calcium. Acids can severely etch limestone, travertine, marble, and other stone containing calcium.

3 When cleaning with acid solutions, take special precautions to prevent splashes or spills onto metal surfaces, particularly stainless steel appliances. Metal surfaces, especially stainless steel, may be etched by contact with acid solutions.



4 Apply **HydraVitalize Stone, Tile and Grout Cleaner**. For normal soiling, mix 1 part solution with five parts water. For heavy soiling, mix 1 part solution with 1 part water. For routine maintenance, mix 1 part solution with 10 parts water.



5 Apply solution generously to floor with sprayer or mop.

6 Grout lines may need to be agitated with a grout brush.



Continues





Natural Stone Cleaning & Maintenance Procedures – Flagstone, Limestone, Travertine, Marble, Terrazzo, Serpentine, Slate, or Granite

Acid Cleaning – to remove soap scum, hard water deposits, urine deposits, rust, and efflorescence. Lightening and brightening grout lines.

7 For best results, agitate and extract cleaning solution using high pressure warm or hot water from a **RX20** with a hard surface attachment, an **Evolution RX12** hard surface rotary extraction tool or high pressure hard surface wand. Your portable or truckmounted extractor should maintain a minimum of 800 psi and a maximum of 1200 psi. For more sensitive surfaces, consider using a hard surface wand or simply mop with clean water and rinse. Specialty hand-held hard surface pressure cleaning tools will be very helpful when cleaning countertops, walls, along edges, and in tight places.



8 For grout, it is important to neutralize the cleaning solution residue. Mix 1 part **HydraStone** with 32 parts water and apply to grout. Allow several minutes of dwell time and then rinse with water.



9 For faster drying, especially in humid environments, consider the use of an axial, centrifugal, or downdraft air mover after cleaning.





Natural Stone Cleaning and Maintenance Procedures

Flagstone, Limestone, Travertine, Marble, Terrazzo, Serpentine, Slate, or Granite

Countertop Maintenance

1 Mix **HydraStone**
1 part solution with 32 parts water.



2 Apply in a light even, mist using overlapping strokes.

3 Allow solution to dwell on surface 1-2 minutes before wiping

4 Wipe and clean surface with a clean, white, cotton towel. There is no need to rinse.





Natural Stone Cleaning and Maintenance Procedures

Flagstone, Limestone, Travertine, Marble, Terrazzo, Serpentine, Slate, or Granite

Special Issues with Stone Care and Maintenance - Efflorescence

Efflorescence is a white, powdery, blotchy or crystalline deposit on the surface of concrete, limestone, marble or masonry products. Efflorescence is due to moisture combining with calcium hydroxide in the limestone, marble or cement, and forming crystals when it reacts with the carbon dioxide in the air.

1 Light deposits of efflorescence may often be removed with a stiff brush or agitation with a white or beige floor pad under an **RX20** with a hard surface kit or a rotary floor machine. It may even wear off over time with foot traffic.

2 Heavier deposits, especially with a crystalline appearance, can be dissolved using **HydraVitalize Stone, Tile and Grout Cleaner**. Mix 1 part **HydraVitalize** with 1 part water.



3 Be sure to protect surfaces not being treated. Use personal protective equipment.



4 Wipe the solution onto the affected area using a sponge or brush.

5 Rinse and extract with water. Use a minimum amount of moisture, as excess moisture can lead to the formation of efflorescence again.

6 Accelerate drying using a axial, centrifugal, or downdraft air mover after cleaning.





Natural Stone Cleaning and Maintenance Procedures – Flagstone, Limestone, Travertine, Marble, Terrazzo, Serpentine, Slate, or Granite

Special Issues with Stone Care and Maintenance - Sealer Haze

1 Stone and grout will not hold an unlimited amount of sealer. When excess sealer is applied and has nowhere to go, a smooth milky white haze can appear on the surface of the stone or grout.

2 Generally, sealer haze on stone will wear off with traffic. Sealer haze on grout can be removed by wiping with a clean towel and more sealer. After application, finish with wiping with just a towel.

3 In extreme conditions, excess sealer can be removed from the stone using **HydraStone** and scrubbing.





Natural Stone Cleaning and Maintenance Procedures

Flagstone, Limestone, Travertine, Marble, Terrazzo, Serpentine, Slate, or Granite

Special Issues with Stone Care and Maintenance - Oil Stains

1 Oil that penetrates through unsealed or poorly sealed stone will penetrate the porous surface. The best way to prevent oil based stains is by making sure the stone always stays properly sealed.

2 Oil stains that do penetrate into the stone can sometimes be removed by the application of a specialty poultice. Contact your local HydraMaster Distributor for more information on this process. [Click here](#) to find a HydraMaster distributor near you.





Natural Stone Cleaning and Maintenance Procedures

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Special Issues with Stone Care and Maintenance - Rust Stains

1 Surface rust stains on stone and grout can sometimes be removed simply by the restorative deep cleaning procedures already discussed.

2 Deeper rust stains will require intensive acid cleaning procedures using **HydraVitalize** previously discussed.



3 Keep in mind that acid sensitive stone, that acid cleaning is not appropriate. For rust stains on those types of stone, **(CAUTION – Acid cleaning should not be used on ANY stone floor that contains calcium. Acids can severely etch limestone, travertine, marble, and other stone containing calcium)** a polishing or grinding process may be required.





Natural Stone Cleaning and Maintenance Procedures

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Special Issues with Stone Care and Maintenance - Organic Stains (Common Household Food And Beverage Spills)

1 These would be stains that remain after restorative deep cleaning.

2 **Knock Out 1** will lighten or eliminate some stains. Test the stone surface or grout first for colorfastness when applying **Knock Out 1**.



3 Apply **Knock Out 1** directly to the stain.

4 Allow the solution to dry.



5 Apply **HydraSeal** to the affected area.





Concrete Cleaning Procedures – Stamped Concrete, Polished Concrete

Professional Cleaning or Restoration Contractors equipped with the proper equipment and tools have the most efficient way to clean and restore the finished look of treated, polished, or stamped concrete floors. As the soil builds up in seams, cracks, and crevices, and as the often porous concrete absorbs in oil and soil, traditional cleaning mechanisms such as “mop and bucket” or automatic floor scrubbers simply can’t restore the appearance of this fine finished concrete to an acceptable level. The heated, high pressure cleaning solution applied to the concrete surface from a high performance portable or truckmount extractor, combined with a rotary extraction tool or specially adapted hard surface wand clean the concrete surface more effectively than any other system. Add to that fact that the waste water handling and collection ability of your truckmount or high performance portable is becoming an environmental necessity outdoors, and is almost a requirement indoors for the deep cleaning of concrete surfaces. Rotary hard surface tools used in conjunction with your high performance portable or Truckmounted extractor not only speed up the cleaning and drying of a concrete floor, they also do a much better job of removing absorbed soil and oil from the porous concrete surface. Now, CleanMaster Cleaning Solutions from HydraMaster have created two comprehensive cleaning solutions specially formulated for cleaning, degreasing, and brightening concrete and tile floors utilizing the oxidizing power of hydrogen peroxide to create an activated effervescent solution that gets into every crevice, crack and pore of concrete to emulsify, dissolve and remove even the most stubborn soiling.





Concrete Cleaning Procedures

Cleaning and Brightening Concrete Floors

1 **QCT with OxyBreak** cleans and brightens concrete and grout lines without the use of harsh acids and chlorine bleaches that can damage the grout and surrounding flooring materials. It cleans, refreshes, and brightens concrete, tile and grout without leaving watermarks or residue like other cleaning chemicals can.



2 Read entire label before using. Use only as directed. Always pretest surface with cleaning solution for colorfastness prior to cleaning. Wear protective eyewear, gloves, long sleeves, and long pants while handling concentrate. Ensure work area is well-ventilated during application. Keep children and pets out of the area during application and drying.



3 Apply **QCT with OxyBreak**. For normal soiling, mix 1 part solution with 4 parts water. For heavy soiling, mix 1 part solution with 1 part water. For routine maintenance, mix 1 part solution with 10 parts water. For application through a in-line Injection Sprayer, use straight solution into sprayer bottle. Use no metering tip which results in a 1:4 mixture.

4 Apply mixed solution with sprayer evenly and liberally across surface to be cleaned. You can use a pump-up sprayer or a battery powered sprayer. If preferred, you can apply mixed solution with a damp mop, sponge, or other appropriate professional equipment. If using a mop for solution application and surface cleaning, change your mop water often to make sure that soil is not re-deposited.

5 For best results, agitate and extract cleaning solution using warm or hot water and a rotary agitation surface cleaner. For tight spaces or especially sensitive surfaces use a hard surface cleaning wand, or simply mop to rinse with clean warm or hot water.



6 When area has been rinsed thoroughly. Allow floor to dry.

7 For faster drying, especially in humid environments, consider the use of an axial, centrifugal, or downdraft air mover after cleaning.



Concrete Cleaning Procedures

Cleaning and Degreasing Concrete Floors

1 **HydraBoost CT** is a high performance, alkaline, heavy-duty concrete, tile and grout cleaner and degreaser that safely replaces mineral spirits and chlorinated solvent-based heavy-duty concrete degreasing products. **HydraBoost CT** penetrates concrete surfaces on contact to soften, lift, and remove a wide range of oils, soils, and greases.



2 Read entire label before using. Use only as directed. Always pretest surface with cleaning solution for color-fastness prior to cleaning. Ensure work area is well-ventilated during application. Keep children and pets out of the area during application and drying.



3 This product is ultra-concentrated. For normal soiling, mix 2 ounces of **HydraBoost CT** powder with one gallon of warm or hot water into a professional sprayer. For extreme soiling, mix three to four ounces of powder with a gallon of warm or hot water into a professional sprayer. For application through a in-line injection sprayer, mix 12 oz. of powder and fill container with water. Use 4:1 dilution.

4 Apply mixed solution with sprayer evenly and liberally across surface to be cleaned. You can use a pump-up sprayer or a battery powered sprayer. If preferred, you can apply mixed solution with a damp mop, sponge, or other appropriate professional equipment. If using a mop for solution application and surface cleaning, change your mop water often to make sure that soil is not re-deposited.

5 Allow for 5 -10 minutes of dwell time. For concrete, if stains have been deeply absorbed, allow 15 minutes of dwell time so the solution has time to reach into the concrete pores and crevices and the oxygen activated effervescent solution can dissolve the soiling and lighten discoloration.

6 For best results, agitate and extract cleaning solution using warm or hot water and a rotary agitation surface cleaner. For tight spaces or especially sensitive surfaces, use a hard surface cleaning wand, or simply mop to rinse with clean warm or hot water.

7 When area has been rinsed thoroughly. Allow floor to dry.

8 For faster drying, especially in humid environments, consider the use of an axial, centrifugal, or downdraft air mover after cleaning.

