

L I M E S T O N E – C A R E I N S T R U C T I O N S

Limestone looks beautiful and is very durable when protected and maintained properly. Limestone is more porous than many other natural stones. Due to the high porosity, limestone is much more susceptible than other natural stones to the absorption of water, oils, grease, dirt and grime, and can be very difficult to protect and maintain. In the past these challenges have been met with difficulty, exhaustion and great expense. **Miracle Sealants Company** offers the most advanced system for the protection, maintenance and restoration of these and other natural stone, tile, grout and masonry surfaces. **Miracle Sealants'** products and procedures, combined with three generations of industry knowledge, will aid you in maintaining the timeless beauty of these surfaces.

P O I N T S O F I N T E R E S T

Foot traffic will wear away the factory finish through abrasion. The floor will slowly develop the natural "patina" through normal use.

Acids in fruit juices, coffee, wine, vinegar and many household chemicals will etch, dull and change the surface of even honed limestone.

↪ For the best bacteria resistance use **511 Impregnator**.

↪ For the best oil and stain repellency use **511 Porous Plus**.

↪ For the best possible oil and water repellency while offering a darkening/color enhanced appearance, **511 Seal & Enhance** should be used.

↪ In any situation where no odor can be present, use **511 H2O+** for stone and grout protection.

Follow the recommended installation methods and procedures of the Marble Institute of America, Building Stone Institute and Tile Council of America. Allow new installations of setting materials and grout to cure per manufacturer's specification prior to impregnating.

NEW INSTALLATIONS

S A M P L E T E S T I N G

Due to the differences of each surface, several inconspicuous test patches should be completed with each product to assure maximum performance. **USERS MUST DETERMINE THE SUITABILITY OF THE PRODUCT FOR THEIR INTENDED USE!**

S E A L I N G A S A G R O U T R E L E A S E

Limestone is very porous and can absorb stains from many items including the dye in many grouts. To insure the best possible installation, **511 Porous Plus** should be applied as a grout release before the grouting process. **511 Porous Plus** will resist dye absorption, facilitate grout residue removal (up to 45% faster), and offer superior stain resistance during the installation process.

D I R E C T I O N S

Always test a small area to insure desired results. Do not dilute at any time. Shake well.

Protect neighboring and adjacent surfaces of wood, carpet, metal, landscaping and other surfaces.

1. Sweep or vacuum all dust, dirt and surface debris. Insure the surface is clean, dry and free from contaminants.
2. **511** may be applied to damp surfaces 1 – 2 hours after standing water has been removed.
3. Apply an even application of **511** using a clean white towel or **MiraBrush Applicator & Tray**.
4. Saturate the surface getting the surface "Wet to the Eye" being careful not to allow **511** into the open ungrouted joints.
5. Allow **511** to dwell for 3 – 5 minutes.
6. Wipe or buff off any excess **511** before it dries on the surface with dry terry cloth towels.
7. Reactivating the residue with **511** and immediately buffing dry with dry terry cloth towels may remove any excess **511** that has dried on the surface creating a residue/film.
8. If the residue has been on the surface for more than a few hours, use **Miracle Sealants' Residue Remover**. Apply directly to the surface and immediately buff or wipe dry with dry terry cloth towels.
9. For **511 H2O+**, use warm water and a soft scrub pad to remove excess.
10. Allow **511** to cure 6 – 12 hours before proceeding with the grouting process.
11. Grout the surface per manufacturer's specifications.
12. Clean all grout residue completely with a clean sponge and water.
13. Refer to the Product Data Sheet, SDS (Safety Data Sheet) & Label for complete directions.

With some difficult surfaces it may be necessary to use **Miracle Sealants' Heavy Duty Acidic Cleaner, Phosphoric Acid Cleaner, Epoxy Grout Film Remover, Miracle HD Cleaner or Finish Sealer Stripper** (depending on grout type) to completely remove all grout residue. Keep in mind that limestone is acid sensitive and too strong of a mixture may etch/dull the surface. A few small test areas are always recommended.

GROUT SEALING

Although grout can be treated with **511 Impregnator/ 511 Porous Plus / 511 H2O+** within an hour of grout residue removal, it is suggested to allow grout to cure per manufacturer's specification so as not to void any manufacturer warranty on the grout. For existing grout it is not necessary to wait.

1. Apply **511 Impregnator/511 Porous Plus** with a paintbrush or **MiraBrush Applicator & Tray** to grout joints.
2. Allow **511** to dwell 3–5 minutes.
3. Wipe or buff off any excess before it dries on the surface with dry terry cloth towels.
4. Any excess that has dried on the surface creating a residue/film, may be removed by reactivating the residue with **511** and immediately buffing dry with dry terry cloth towels.
5. For **511 H2O+**, use warm water and a soft scrub pad to remove excess.
6. Finished area can be used for normal foot traffic in 3–5 hours.
7. Allow **511** to cure 72 hours before subjecting to water, oil and staining materials.
8. Refer to the Product Data Sheet, SDS & Label for complete directions.

Apply **511 Porous Plus** with a paintbrush to all grout joints for water and stain protection. On large areas the entire surface may be wiped and all excess sealer on the limestone should be wiped away with a clean dry terry cloth towels within 3–5 minutes.

SEALING AND THE NATURAL LOOK

If you are trying to retain the natural look of the stone, we recommend stopping at this point and putting the area into service. This type of finish will require the least amount of maintenance and is recommended for high traffic and food areas for maximum stain and slip protection.

MAINTENANCE

Although this type of surface will not show wear as readily as other surfaces, it is wise to keep it as clean as possible. Daily sweeping and use of a dust mop will help keep grit, dirt and grime off of the surface which may cause scratches.

LIGHT CLEANING FOR THE NATURAL LOOK

Daily cleaning should consist of using **Limestone/Travertine Soap**. **Limestone/Travertine Soap** can also be used as an alternative for ongoing maintenance. **Limestone/Travertine Soap** will clean and protect in one step while adding a slight patina to the finish. Apply **Limestone/Travertine Soap** as often as you like as it will hide imperfections, scratches and not build-up on the stone surface. **Limestone/Travertine Soap** can be used on walls and counters.

1. Sweep or vacuum all dust, dirt and surface debris. Insure the surface is clean, dry and free from contaminants.
2. Mix one part **Limestone/Travertine Soap** to ten parts warm water for first 6 months. After 6 months mix one part **Limestone/Travertine Soap** to twenty parts warm water.
3. Apply **Limestone/Travertine Soap** solution using a mop or sponge.
4. Do not rinse.
5. Allow **Limestone/Travertine Soap** solution to dry (for additional luster the area can be dry buffed with a white nylon buffing pad).
6. Change the water when it becomes dirty or cloudy.
7. Finished area can be used for normal foot traffic in 1–5 hours.
8. Refer to the Product Data Sheet, SDS & Label for complete directions.

In kitchen and food preparation areas use **Miracle Sealants' Tile & Stone Cleaner**. Can go back to using **Limestone/Travertine Soap** after cleaning with **Tile & Stone Cleaner**.

1. Sweep or vacuum all dust, dirt and surface debris. Insure the surface is clean, dry and free from contaminants.
2. Mix one part **Tile & Stone Cleaner** with ten parts warm water (1:10). For more difficult cleaning issues, use a mixture of one part **Tile & Stone Cleaner** with three parts warm water (1:3).
3. Apply **Tile & Stone Cleaner** solution using a mop or sponge.
4. Allow solution to dwell 10–20 minutes.
5. Agitate periodically with a soft brush.

6. Extract all dirty remains with towels or a wet vacuum.
7. Rinse the surface with clean water to eliminate any streaks or residue.
8. Change the water when it becomes dirty or cloudy.
9. Finished area can be used for normal foot traffic in 1 – 5 hours.
10. Refer to the Product Data Sheet, SDS & Label for complete directions.

SEALING AND COLOR ENHANCEMENT

Always test a small area to insure desired results. Do not dilute or thin at any time. Shake well.

Protect neighboring and adjacent surfaces of wood, carpet, metal, landscaping and other surfaces.

For color enhancement we recommend **Miracle Sealants' 511 Seal & Enhance** impregnator and color enhancer. **511 Seal & Enhance** was designed to enhance the natural color of most porcelain, ceramic, mosaic & glazed tile (results will vary, so be sure to conduct a few, small test areas prior to doing the entire job). In addition to beautifying the tile, **511 Seal & Enhance** offers stain resistance to water, oil and stains all in one product.

MAINTENANCE

Although this type of surface will not show wear as readily as other surfaces, it is wise to keep it as clean as possible. Daily sweeping and use of a dust mop will help retain the natural look.

1. Sweep or vacuum all dust, dirt and surface debris. Insure the surface is clean, dry and free from contaminants.
2. Mix one part **Limestone/Travertine Soap** to ten parts warm water for first 6 months. After 6 months mix one part **Limestone/Travertine Soap** to twenty parts warm water.
3. Apply **Limestone/Travertine Soap** solution using a mop or sponge.
4. Do not rinse.
5. Allow **Limestone/Travertine Soap** solution to dry.
6. Change the water when it becomes dirty or cloudy.
7. Finished area can be used for normal foot traffic in 1 – 5 hours.
8. Refer to the Product Data Sheet, SDS & Label for complete directions.

In kitchen and food preparation areas use **Miracle Sealants' Tile & Stone Cleaner**. Can go back to using **Limestone/Travertine Soap** after cleaning with **Tile & Stone Cleaner**.

1. Sweep or vacuum all dust, dirt and surface debris. Insure the surface is clean, dry and free from contaminants.
2. Mix one part **Tile & Stone Cleaner** with ten parts warm water (1:10). For more difficult cleaning issues, use a mixture of one part **Tile & Stone Cleaner** with three parts warm water (1:3).
3. Apply **Tile & Stone Cleaner** solution using a mop or sponge.
4. Allow solution to dwell 10–20 minutes.
5. Agitate periodically with a medium brush.
6. Extract all dirty remains with towels or a wet vacuum.
7. Rinse the surface with clean water to eliminate any streaks or residue.
8. Change the water when it becomes dirty or cloudy.
9. Finished area can be used for normal foot traffic in 1 – 5 hours.
10. Refer to the Product Data Sheet, SDS & Label for complete directions.

LIGHT CLEANING FOR COLOR ENHANCEMENT

Daily cleaning of stone impregnated with **511 Seal & Enhance** can consist of using **Limestone/Travertine Soap** or **Tile & Stone Cleaner** as directed previously in this guide.

RESTORATION

FLOOR COATING / WAX REMOVAL

Always test a small area to insure desired results.

Protect neighboring and adjacent surfaces of wood, carpet, metal, landscaping and other surfaces.

To remove existing water base coatings and waxes use **Miracle Sealants' Finish Sealer Stripper** fast acting stripper. To remove existing solvent base coatings, waxes and mastics use **Miracle HD Cleaner, Epoxy Grout Film Remover** for a fast acting stripper.

1. Sweep or vacuum all dust, dirt and surface debris. Insure the surface is clean, dry and free from contaminants.
2. Apply stripper to the surface undiluted.

3. Allow solution to dwell for 5 – 20 minutes, agitating periodically with a medium aggressive hand brush for small areas and floor brush and a 150 lbs., 175 rpm floor machine for large areas.
4. Remove all dirty remains with towels or a wet vacuum.
5. Thoroughly rinse surface with clean water.
6. Allow the surface to dry.
7. Multiple applications may be required.
8. **Finish Sealer Stripper** is alkaline and may affect the surface finish of some stone.
9. Finished area can be used for normal foot traffic in 1 – 5 hours.
10. Refer to the Product Data Sheet, SDS & Label for complete instructions.

HEAVY DUTY CLEANING

Always test a small area to insure desired results.

Protect neighboring and adjacent surfaces of wood, carpet, metal, landscaping and other surfaces.

To remove hard water deposits, grout residue, efflorescence, rust and other heavy dirt and grime use **Liquid Poulitice**, **Phosphoric Acid Cleaner**, **Heavy Duty Acidic Cleaner**, **Miracle HD Cleaner** or **Porcelain & Ceramic Tile Cleaner**.

Acid Sensitive Surfaces should be cleaned with **Miracle Sealants' Liquid Poulitice**, a non-acidic deep cleaner designed specifically for acid sensitive stone surfaces. Use of **Liquid Poulitice** will not affect the natural finish of the stone.

1. Sweep or vacuum all dust, dirt and surface debris. Insure the surface is clean, dry and free from contaminants.
2. Mix one part **Liquid Poulitice Part A** with one part **Liquid Poulitice Part B** with 2 equal parts warm water.
3. Wet the surface to be cleaned.
4. Apply **Liquid Poulitice** solution using a soft brush, towel or mop.
5. Allow solution to dwell 40 minutes while keeping the surface damp.
6. Agitate the surface with a soft brush periodically.
7. Remove excess with towels or wet vacuum.
8. Rinse with clean water.
9. On walls a fine mist may be applied and allowed to dry up to 72 hours.
10. Finished area can be used for normal foot traffic within 1 – 5 hours.
11. Refer to the Product Data Sheet, SDS & Label for complete instructions.

For hard water deposits and soap scum that may begin to develop in shower and bath surfaces use **Miracle Sealants' Porcelain & Ceramic Tile Cleaner**. Easy to use, and very effective **Porcelain & Ceramic Tile Cleaner** contains mild abrasives in a mild ammonia cleaner. Not only does it clean but also it will tend to “even out” the blotchy look of smooth honed limestone. Be sure to conduct a few, small test areas to determine suitability of this product on the limestone. As it may alter the gloss slightly.

1. Sweep or vacuum all dust, dirt and surface debris. Insure the surface is clean, dry and free from contaminants.
2. Simply flip the top and squeeze some onto a soft, white scrub pad.
3. Scrub in circular motions.
4. Rinse with water and damp wipe the dirt away.
5. For large area, **Porcelain & Ceramic Tile Cleaner** can be applied directly to the honed surface and buffed using a 175 rpm, 150 lbs. floor machine.
6. Finished area can be used for normal foot traffic in 1 – 5 hours.
7. Refer to the Product Data Sheet, SDS & Label for complete instructions.

For the most aggressive cleaning challenges use **Miracle Sealants' Heavy Duty Acidic Cleaner**, a strong hydrochloric acid cleaner.

1. Sweep or vacuum all dust, dirt and surface debris. Insure the surface is clean, dry and free from contaminants.
2. Mix one part **Heavy Duty Acidic Cleaner** with ten parts water (1:10). Do not use stronger than (1:3).
3. Wet surface to be cleaned with clean water.
4. Apply **Heavy Duty Acidic Cleaner** solution using a brush, towel or mop.
5. Allow solution to dwell 1 – 5 minutes while keeping the surface damp.

6. Agitate the surface with a brush.
7. Do not allow solution to dry on the surface.
8. Remove excess with towels or wet vacuum.
9. Rinse with one part **Tile & Stone Cleaner** with ten parts clean water (1:10) to insure complete neutralization.
10. Finished area can be used for normal foot traffic in 1 – 5 hours.
11. Refer to the Product Data Sheet, SDS & Label for complete instructions. For the little less aggressive cleaning challenge use **Miracle Sealants' Phosphoric Acid Cleaner**.

1. Sweep or vacuum all dust, dirt and surface debris. Insure the surface is clean, dry and free from contaminants.
2. Mix one part **Phosphoric Acid Cleaner** with ten parts water (1:10). Do not use stronger than (1:3).
3. Wet surface to be cleaned with clean water.
4. Apply solution using a brush, towel or mop.
5. Allow solution to dwell 1 – 5 minutes while keeping the surface damp.
6. Agitate the surface with a brush.
7. Do not allow solution to dry on the surface.
8. Remove excess with towels or wet vacuum.
9. Rinse with one part **Tile & Stone Cleaner** with ten parts clean water (1:10) to insure complete neutralization.
10. Finished area can be used for normal foot traffic in 1 – 5 hours.
11. Refer to the Product Data Sheet, SDS & Label for complete instructions.

STAIN REMOVAL

For stain removal troubleshooting use **Poultice Plus** and refer to the **Miracle Sealants' Stain Removal Guide** for further information.

Always test a small area to insure desired results.

Protect neighboring and adjacent surfaces of wood, carpet, metal, landscaping and other surfaces.

1. Sweep or vacuum all dust, dirt and surface debris. Insure the surface is clean, dry and free from contaminants.
2. Mix **Poultice Plus** with the appropriate **MSC Cleaner** (refer to stain removal guide) into a peanut butter like paste.
3. Apply **Poultice Plus** paste to stain about 1/4" thick and overlap the stain by 1/4".
4. Cover the **Poultice Plus** paste with plastic wrap.
5. Tape the plastic wrap to the surface using non-marking tape to create an "air tight" seal.
6. Allow to dry 24 – 48 hours or until completely dry to hard clay like paste.
7. Remove plastic wrap from stain.
8. Remove the residual powder/paste away using a wood spoon or spatula.
9. Rinse the area using distilled water.
10. Multiple applications may be necessary to remove stain entirely.
11. Finished area can be used for normal foot traffic in 1 – 5 hours.
12. Refer to the Product Data Sheet, SDS & Label for complete instructions.

COUNTERCLEANING

For limestone counters (especially polished or high honed), using **Counter Kleen** as often as you want will keep it clean without streaking. **Counter Kleen** is a non-toxic cleaner that is easily sprayed onto the surface and wiped off.

1. Ready-to-use. Spray directly onto counter.
2. Wipe dry using a clean dry towel.
3. No rinsing necessary.
4. Finished area can be used immediately.
5. Refer to the Product Data Sheet, SDS & Label for complete instructions.

RESURFACING/REFINISHING

To restore the luster low gloss, satin, honed finish and deep clean, scrub/buff using **Miracle Sealants' Mira Hone** (non-acid powder) as directed. These products will remove light scratches and imperfections.

1. Sweep or vacuum all dust, dirt and surface debris. Insure the surface is clean, dry and free from contaminants.
2. Wet the stone surface with clean water.
3. Sprinkle **Mira Hone** onto the surface.
4. Buff using a 175 rpm, 150 lbs. floor machine equipped with a natural fiber brush, white nylon pad or polishing pad.
5. Buff in a consistent side-to-side movement.
6. Create a slurry solution on the surface and keep moist.
7. Do not allow slurry to dry on the surface.
8. Squeegee slurry to next section as results are achieved.
9. Work small areas until desire results are achieved.
10. Remove slurry using a wet vacuum.
11. Make sure to rinse areas using **Tile & Stone Cleaner** (1:10) in the rinse water.
12. Re-treat surface with **511 Porous Plus** as directed.
13. Finished area can be used for normal foot traffic in 1 – 5 hours.
14. Refer to the Product Data Sheet, SDS & Label for complete instructions.

Another option is to apply **Porcelain & Ceramic Tile Cleaner** directly from the bottle. **Porcelain & Ceramic Tile Cleaner** will remove light scratches, imperfections and deep clean smooth, honed surfaces. Use as previously directed in this guide.

For heavy scratches, damage and imperfections, **Diamond Abrasives** should be by a **stone care professional only!** Heavy restoration is the process of removing the accumulation of scratches and wear by sanding the stone with the appropriate Diamond Abrasive pad. This is the same process utilized in many processing plants to achieve the factory finish.

COUNTERCLEANING AND PROTECTION REJUVENATION

Always test a small area to insure desired results.

Protect neighboring and adjacent surfaces of wood, carpet, metal, landscaping and other surfaces.

For counters, using **Miracle Sealants' 511 Kleen & Reseal**, as needed will keep it clean without streaking while rejuvenating the protection from the appropriate **511 Sealant**. **511 Kleen & Reseal** is easily sprayed onto the surface and wiped off with a clean towel or micro fiber cloth.

1. Spray directly onto soiled area.
2. Wipe up with a clean, dry towel or sponge. No rinsing necessary.
3. Repeat for heavily soiled areas allowing product to sit for several minutes. Agitating or scrubbing with a nylon pad before wiping.
4. Finished area can be used immediately.
5. Refer to the Product Data Sheet, SDS & Label for complete instructions.

SEALING MAINTENANCE

Resealing will vary depending on porosity, density, hardness, foot traffic and the elements (indoor or outdoor) the area is exposed to. As a general rule, medium to dense surfaces exposed to heavy foot traffic can be resealed every 1 – 3 years. Very hard surfaces exposed to heavy foot traffic can be resealed every 3 – 5 years. It is important to remember that any additional or future applications of **511 Sealants** will require less sealant than originally used.

SPECIAL NOTE

Foot traffic will wear the factory finish through abrasion. Acids in fruit juices, coffee, wine, vinegar and many household cleaners will etch the surface removing the factory finish of all limestone, marble, travertine and other calcareous stone even when treated with an Impregnator/Penetrating Sealer.