



BARRIER II

STAIN PROTECTOR FOR ALL STONE, COMPOSITE STONE, CONCRETE
SUBSURFACE, INVISIBLE, USE INDOORS AND OUTDOORS

Product concept and performance parameters

There has been an urgent need for a product that impregnates unglazed ceramics and composites of stone such as granite, marble, limestone, sandstone, terrazzo as well as smooth trowelled concrete. The concept being to lock out the staining and degrading effects of water, food based spills, animal fats, vegetable and mineral oils, sauces like soy and stains like red wine that can permanently ruin the appearance.

Barrier II is a solution to this problem. Without the need of highly skilled tradesman it can be quickly and economically applied to easily stained surfaces such as granite benches, marble tables, ledges and marble bathrooms.

The main application will be for porous ceramics and stone floors in shopping centres, building foyers, sandstone patios, concrete factory and car park floors. All these surfaces require a high level of appearance and slip safety. Barrier II may also be used to protect ornaments, sculptures, facades and columns both indoors and outdoors.

Advantages of Barrier II

- Doesn't alter the natural colour, texture and appearance of the stone. It provides an invisible impregnation.
- Highly resistant to water and water based stains.
- Highly resistant to food spills.
- High level of protection against common hydrocarbon solvents, mineral and vegetable oils and animal fats.
- Increases the coefficient of friction of the surface.
- Highly resistant to the effects of heat and U.V rays.
- Doesn't alter the breathability of the stone.
- Safer to use than solvent based silicones (contains no silicone).
- No stripping or sealing required on floors.

Application

Barrier II dries quickly compared to other solvent or silicone impregnators. Depending on humidity it dries within 1 hour. It is then possible to apply acrylic, gloss enhancing finishes, if required.

Curing

The best performance level as an anti-stain is reached after a 24-hour curing period. Do not vitrify the surface until curing has taken effect, however, it is safe to apply surface coatings after 2 hours. Try to keep traffic and staining materials away from the surface for 24 hours if possible.

Vitrification

Whilst Barrier II works amazingly well on its own we have found that impregnation, followed by surface vitrification to increase surface hardness and gloss, provides an extremely low maintenance floor. Because this treatment is **not a surface coating**, slip resistance doesn't alter on a daily basis if a regular scrubbing process is implemented. Surface coatings like acrylic polymer / wax combinations are dependent on film thickness, cleaning / scrubbing then a buffing procedure to maintain a non-slip surface.

By removing the regular sealing and recoating of a surface polymer as well as the burnishing / buffing step, the **variation in slip resistance** can be more controlled.

An impregnated and vitrified floor requires lower maintenance labour, less cleaning machinery, as well as providing a **more long term and accurate slip / fall risk management programme for each site**. In real terms, risk protection expenditure and floor cleaning costs should reduce.

Maintenance Procedures with Barrier II

Choosing a detergent is easy. For automatic scrubbing the product should be low or medium foaming, have a PH of between 6 and 8 (at use dilution) and contain no Butyl glycol.

We recommend Research Products **Supastar** or Citrus Resources **Orange Squirt** at dilution:

Mopping:	Approximately 1 to 60 parts water (3/4 cup bucket)
Autoscrubbing:	Approximately 1 to 100 parts water (500ml per 50)

Dust Removal: Dust mop surface with an electronic mop prior to scrubbing or mopping.

Autoscrub or mop the surface daily to remove surface soiling and spillage residues that may not have been picked up with through to day spot mopping. Use the same concentration daily except after the lowest traffic day (usually Monday). Scrub with water alone on that day to remove any possibility of detergent buildup. Using too much detergent can reduce the slip coefficient. **By using water one day per week, you remove the chance of detergent buildup.**

Dust Control / Spill Control

These are the two most important daily aspects of maintaining a slip resistance and stain free surface. Because a slip / fall risk management programme should be in place, so should a dust removal programme. Ensure adequate dust and grit trap matting is used at all entrances and that a dust removal programme is employed at least twice daily using fringe mops.

Fast response to spills by mopping up these as they happen (with wet floor signs in place) will reduce the chance of slip falls.

Constant monitoring of test sites has proven to give an increase in slip resistance when compared with the untreated stone or concrete surface.

Coverage

The volume of product depends on the porosity of the stone surface.

In general, 5 to 10 square metres per ltr on the first coat rising to 10 to 15 square metres per ltr on subsequent coats. Carry out trials to establish coverage requirements prior to beginning the job or quoting for material usage.

Directions for use

Shake the container before use. Apply only as supplied, do not dilute.

Surface doesn't need to be completely dry or cured. Surface must be dust and oil free.

Application is best done with a lambswool applicator from a flat paint tray, paint brush or a light even spray. For smaller surfaces such as tabletops, benches use a folded, lint free cloth made into a pad is the easiest to use.

Spread the product evenly over the surface, **the anti-stain protection is increased the more coats you apply**. On medium / low porosity stone (like granite) 1 to 2 coats will be adequate, where as composite marbles, terrazzo or trowelled concrete, sandstone steel 2 or 3 coats may be required.

Apply each coat across the direction of the previous coat so as to ensure even application. Ensure each coat has penetrated and is completely dry prior to applying the next coat (usually 1/2 hour). Do not apply surface coating for at least 2 hours after **the last coat**.

Barrier II re-treatment

The constant effects of abrasive scrubbing brush or pad will alter the surface of the stone and the treatment of Barrier II will require replenishing. It is recommended that the surface be recoated (usually one or two coats) yearly or more frequently if dust can't be removed from the surface on a daily basis (railway stations, foyers, etc). Your application contactor should test for repellency every six months.

Product Limitations

Barrier II doesn't protect against the damaging effects of strong acids like hydrochloric, phosphoric based cleaners.

Barrier II is not a water-proofing product and will not stop leakage through cracks in porous stone or concrete.

Methylated spirits, Ethanol and Isopropyl alcohol applied neat will remove Barrier II **from the surface**. These products should be kept away.

Low cost surface and subsurface impregnators based on silicone do not perform as well as Barrier II. These products, whilst helping to shed water droplets, don't protect against oily based spills and are therefore not recommended. A silicone will also affect the adhesion of water based polymers. Coefficient of friction is also altered in wet conditions if these finishes are applied.

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