



Kilkenny Limestone Maintenance Guide

## Caring for Kilkenny Limestone Products

As a naturally occurring material, blue limestone is ideally suited to withstand environmental stresses, as well as being resistant to the typical permanent staining and discolouration that can affect materials with the passage of time. Time, in fact, is kind to the stone as it proceeds to develop a distinctive look and feel, making it an obvious choice for architects and craftsmen seeking to achieve a unique and characterful aesthetic. However, despite its low maintenance requirement, as with all quality materials, it does require some degree of care and attention over time.

### Exteriors

#### Surface Dirt

The type of limestone most commonly used in exterior spaces is specified with a matt surface finish, which becomes slightly paler as part of the normal weathering process. Any surface dirt on exteriors should be intermittently removed by scrubbing with a bristle brush and general purpose soap in clean water. Exposed ashlar and cladding may need to be treated in this manner at 10-15 year intervals to remove any build-up of environmental pollutants and to ensure that the high quality finish of the stone can be best appreciated.

#### Cleaning

During the Autumn and Spring seasons, Kilkenny Limestone recommends cleaning exterior surfaces with a general purpose soap solution. Do not rinse. This will ensure that a protective soap film coats the surface, enhancing the characteristic blue-grey colour of the stone.

**Important: Routine use of industrial pressure washers is not recommended as water is forced into the stylolites, thereby degrading the surface of the stone. On the rare occasions when pressure washers, water spray or steam-cleaning is necessary, these techniques should only be undertaken in accordance with the guidelines set out in British Standard BS 6270 Part 1: 1982 Code of Practice for Cleaning & Surface Repair of Buildings.**

## Spring Clean

Leaves of trees can leave a yellowish-brownish mark on Kilkenny Limestone. If brushing with clean water is not enough to remove the mark, a bleach solution can help (brush and rinse with clean water).

## Algal Accumulation on Paving

Blue limestone used for paving is susceptible to some degree of algal build-up in lightly trafficked or shady areas. Interestingly, improvements in air quality can actually result in increased build-up over time. Careful and regular scrubbing with a stiff bristle brush and clean water will typically remove this. Algaecides should be used with care, and Kilkenny Limestone recommends initially testing these products on a small, inconspicuous area to ensure no adverse reaction with the stone.

## Colour Changes

In areas where the stone remains largely unexposed to direct sunlight during the day, the stone may stay darker. This natural effect can be fully reversed by treating with a bleach solution, causing no permanent damage to the stone.

## Stains

Consultation with a Kilkenny Limestone Stone Specialist is highly recommended regarding removal of stains to Irish blue limestone products. Please refer to the Stain Removal Guide.

## Interiors

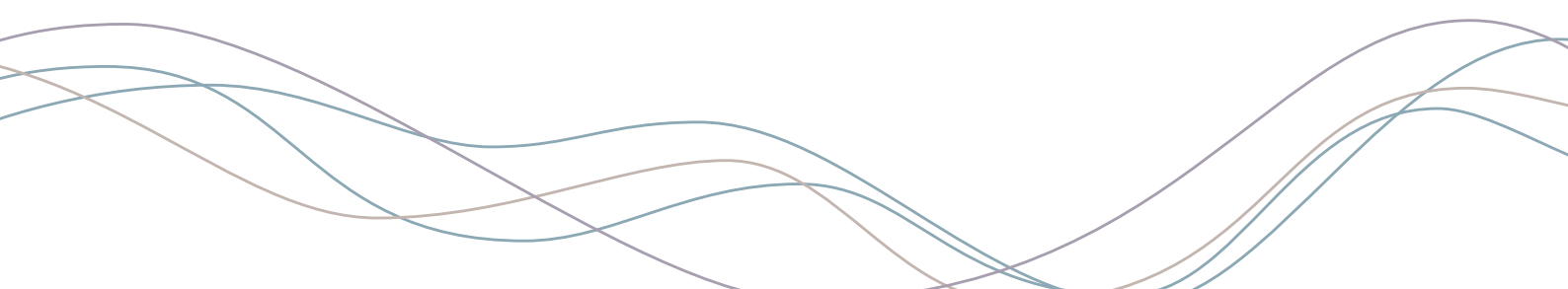
### Kilkenny Limestone Floors: The Initial Months

After fixing, it is important to allow sufficient time for a limestone floor, including underlying mortar and concrete, to fully dry before any cleaning can be carried out. A brick building with a concrete floor structure would typically need 3 to 6 months for atmospheric humidity levels to decrease as any residual water evaporates.

During these initial months, it is advisable to simply clean using a minimal amount of clear water on a slightly dampened cloth. Do not use soap during these initial months. It is essential that joints are properly filled during the fixing stage to ensure that no cleaning water seeps underneath the tiles.

Following the fixing stage, if the floor is significantly dirty, Kilkenny Limestone recommends the use of approved cleaning products such as a Lithofin® Power Clean (NON ACID). Please note: Kilkenny Limestone does not recommend the use of sealers for interior blue limestone flooring.

Never use multi-purpose floor cleaning products that have not been approved for use with natural limestone, as these may contain corrosive ingredients, which could potentially react with the stone, permanently damaging its appearance.



## Regular Maintenance

After the initial wearing-in period, regular maintenance of Kilkenny Limestone interiors is encouraged. Clay and grit should be brushed or vacuumed off before washing the stone, especially for products with a sanded finish. A soft mop and a handful of neutral general purpose soap flakes dissolved in a bucket of warm water will suffice. Do not rinse. A protective film of residual soap will coat the surface of the stone, penetrating its pores. After a number of such soap treatments, the stone surface will become saturated, at which stage the floor is adequately protected. Expect the soap film to remain visible until this stage. Once the stone is saturated, it will develop its optimal appearance with its rich and diverse fossils and subtle colour variations displayed at their best.

Specialist sealings are recommended to fully protect floor tiles. Kilkenny Limestone Stone Specialists are available at any time to consult on the use of suitable products.

Never use industrial buffers to clean Honed limestone tiles, as the abrasive pads will damage the tile surface.

### ▶ Worktops

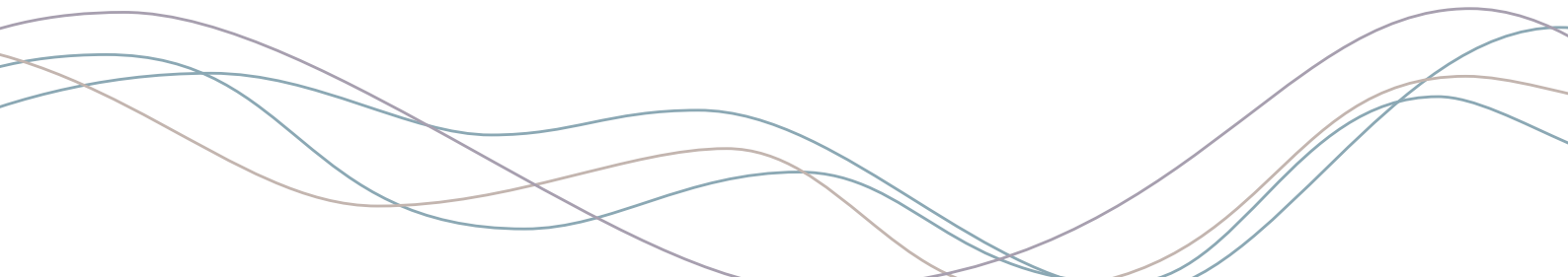
Everyday care for blue limestone worktops simply involves cleaning with household dishwashing liquid. Occasionally, the worktop can be treated with a little olive oil by working it into the surface with a soft cloth. For an added layer of protection, a specialist coating system can be applied, and this should be carried out by a skilled professional.

### ▶ General Interior Surfaces

Use a clean, dry stiff nylon brush to remove dust from matt finish limestone interior surfaces. Wash the tiles with warm soapy water (do not use large quantities of soap), without rinsing. Wipe using a cloth soaked in warm water and wrung out. The soapy water nourishes the stone and softens any micro-scratches. Detergents, cleaning sprays and polishes are best avoided, due to resultant staining of the stone and its surrounds. Limestone specialists strongly recommend that those with responsibility for cleaning building interiors take note of these guidelines, as this type of staining is particularly stubborn to remove.

## Stains

Consultation with a Kilkenny Limestone Stone Specialist is highly recommended regarding removal of stains to Kilkenny Limestone products. Please refer to the Stain Removal Guide.



# Stain Removal Guide

## Consult a Specialist

Kilkenny Limestone strongly recommends consultation with a Stone Maintenance Specialist for advice on effective stain removal.

## Oils, Paints, Grease & Detergents

All limestone surfaces are slightly porous and will absorb oils, greases and detergents with which they come in contact. This often results in patches of permanent discolouration which may be more noticeable on products with a paler finish. Take care to protect the stone from paints, varnishes and renders during routine maintenance, as these will leave indelible marks. It is possible to remove these stains using dissolving products such as acetone (i.e. nail polish remover), ammonia (NH<sub>3</sub>) or K2R® stain remover. Paint stains can be treated with paint thinner or a stripper for latex. Always rinse with clean water after cleaning. A Kilkenny Limestone Stone Specialist is available at any time to provide advice on removing these types of stain.

## Everyday Mishaps: Tea/Coffee/Soft Drinks/Wine/Blood

For less serious everyday stains, simply treat the surface with a little warm water and household dishwashing soap. For more stubborn coloured stains, a cloth soaked in diluted bleach solution can be used. Rinse with clean water afterwards.

## Silicone & Water Repellent Substances

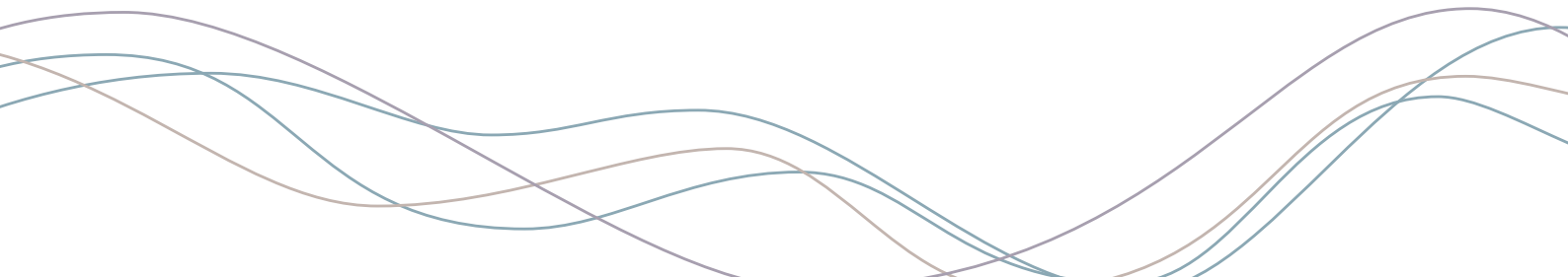
These types of substances must be immediately removed following the advice of a Kilkenny Limestone Stone Specialist. Paint thinner, or other specifically recommended solvents, can be used. If staining persists, slightly rub the area with extra-fine sand paper in a circular motion. A 50:50 mixture of linseed oil and turpentine can be applied to restore the darker tones of the stone.

## Copper Stains

Contact with copper oxide results in a greenish-black stain. This can be removed by applying a viscose mixture of ammonia, ammonium chloride and chalk powder which serves as an absorbent in a proportion of 1.5/1.0/4.0

## Acidic Liquids/Urine

Simple treatment with warm water, a little household dishwashing soap and a slightly abrasive kitchen sponge will remove these stains. If staining persists, slightly rub the area with extra-fine sand paper in a circular motion. A 50:50 mixture of linseed oil and turpentine can be applied to restore the darker tones of the stone.



## Rust Stains

Treat these stains using fine sandpaper in a circular motion on the surface. In the case of a dark honed finish, a 50:50 mixture of linseed oil and turpentine can be applied to restore the darker tones of the stone.

## Graffiti

Sodium/potassium-hydroxide based alkaline chemical cleaners can be applied to remove graffiti. Please contact Kilkenny Limestone for a list of specialist professionals who provide this service. These companies may also offer specialist surface coatings to limit the absorption of paints or oils. Please note, these coatings generally do cause a degree of discolouration and may result in a patchy appearance over time.

### WARNING!

Acid-based cleaners and cement removers will cause irreparable damage to the structure and surface of Kilkenny Limestone, and should not be used. Limescale removers, such as household bathroom and kitchen cleaners, will damage the finish on limestone worktops, sink surrounds and tiles, and should not be used.