



# Marble Protection manual

Protection guidelines for natural stones



MADE IN ITALY





## OUR HISTORY

The company Bellinzoni, founded in 1937 in Milan (Italy), immediately stood out for research and development of innovative products with high quality profile, that accompanied the development of the stone market by providing solutions to the problems that have occurred over the years, in an almost centenary path. In order to fulfill this vision, continuous investments have been necessary in manufacturing facilities, modern and efficient research and development laboratories that gave innovative and certified instruments to the Company, while enhancing its legacy of knowledge.

Starting from the first product, "Special Preparation for Polishing", still on the market, the Company has come to more than 50 currently available products, all dedicated to the protection, polishing, filling and maintenance of marble, granite, stone, terracotta, ceramics, metals and plastics.

The presence on the relevant markets continued in quick steps, the Company established itself primarily in Italy and in Europe, up to today in over 80 countries worldwide thanks to its distribution network formed by direct branches, retailers, importers and supermarkets.

## WORDWIDE

Argentina, Bahrain, Bangladesh, Belgium, Bolivia, Bulgaria, Canada, Czech Rep., China, Chile, Cyprus, Colombia, Corea South, Costa Rica, Croatia, Dominican Rep., Ecuador, Egypt, E.A.U., Estonia, Finland, France, Germany, Greece, Holland, Hong Kong, Hungary, India, Indonesia, IRAN, Israel, Japan, Jordan, Kuwait, Libano, Luxemburg, Macau, Makedonia, Malaysia, Malta, Mauritius, Morocco, Mexico, Moldavia, Nigeria, Norway, New Zealand, Oman, Panamá, Peru, Poland, Portugal, Portorico, Qatar, Romania, Russia, Saudi Arabia, Slovak Rep., Slovenia, Spain, Sri Lanka, South Africa, Switzerland, Taiwan, Thailand, Tunisia, Turkey, Uganda, Ukraine, Uruguay, Venezuela, Vietnam, Yemen.

## DETAILS

30 Countries Bellinzoni® trademark registered

90 Destinations in the world

122 Container loaded (2015) 20' ft

25 Exhibitions every year (worldwide)

## PRODUCTION LINES



### PROTECTIVES

Complete range of protectives for marble, granite, quartz and stones surfaces



### POLISHERS

Range of polishers for marble, granite, quartz stone surfaces and floors.



### ADHESIVES

Range of mastics for the grouting, smoothing, glueing and sealing of marble, granite, quartz, stones floors and surfaces.



### CLEANERS

Range of cleaners for the maintenance of marble, granite, quartz and stones.



### PROBLEM SOLVING

Range of products suitable for removing spots and rust on marble, granite, quartz and stones surfaces and floors.



### BUILDING PRODUCTS

Range of products suitable for construction on natural stones.



## OUR CERTIFICATE



# PROTECTION GUIDELINES FOR NATURAL STONES

## CHEMICAL COMPOSITIONS

Chemical compositions of natural stones are very different. The way of maintenance and the chemical products that should be used vary depending on stones composition. Basically it is possible to divide stones into three main categories:

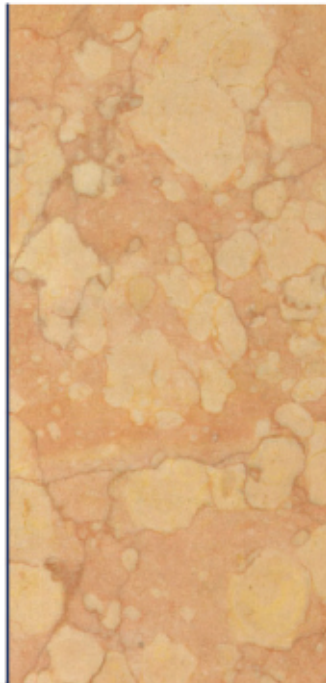


### GRANITES

According to commercial classification, granites are silica based stones formed from magma solidification at high temperature and pressure.

They have grains from compact to medium, with high hardness properties (6-7 of Mohs scale) and high mechanical resistance.

They therefore have high resistance against wear and tear, to atmospheric agents, to acids and pollution.



### MARBLES

Marbles actually are stones with crystalline calcareous structure that were formed at high pressure and at a temperature of 400°C approx.

Their characteristics are the diversity of tonality and grain components (fine, medium, big) and the variety of colours, tonality hues: pink, yellow, grey, green, red, black etc.

Their hardness is lower than granite's (3-4 of Mohs scale).

### TRAVERTINE AND SEDIMENTARY STONES

Travertine is a very porous sedimentary calcareous stone, formed by deposit of calcium carbonate and further decomposition of vegetable components mixed in their formation.

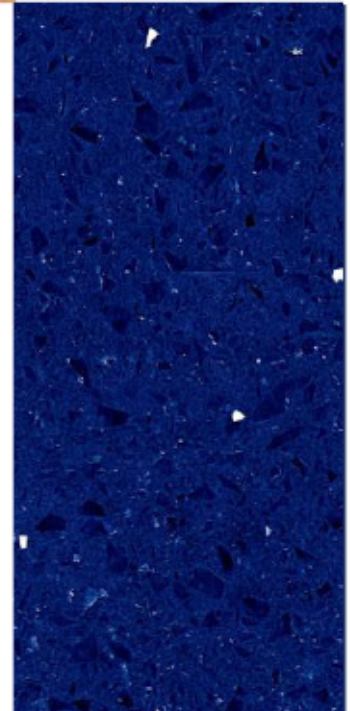
It has reasonably good mechanical properties and easy workability due to its low hardness and some types can be polished. Their colour is generally light yellowish but there are some darker and of different colour as well. Other sedimentary stones are of calcareous nature (limestone), widespread in many varieties, and sandstone.



### ENGINEERED STONES

Engineered stones are also defined "artificial stones". They are generally composed of 93% quartz/silica sand or marble (in chips or in powder) and 7% polyester resin as bonding.

Nowadays the major production is with quartz/silica sand as major component plus others materials added like glass, mirrors, shells, metals etc.



## OTHER NATURAL STONES

There is a variety of natural stone used as decorative dimensional stones such as slate, porphyry, basalt, lava stones etc., that are maintained as above mentioned natural stones.

# Cleaning

The first and probably the *most important operation is the cleaning.*

The cleaner is the stone the easiest are following treatments.

To obtain a proper cleaning, it is necessary to take into consideration the factors that could jeopardize the final result:

## 4 CLEANING Useful factors to know about cleanig

### Temperature: 25%



In some case, using a different water temperature can help to remove particular a type of dirt. Usually, warm water together with the appropriate detergent is needed to remove greasy dirt, because warm water helps to dissolve the fat molecules.

### Action time 25:%



Action time is the time that must be dedicated to the cleaning process.

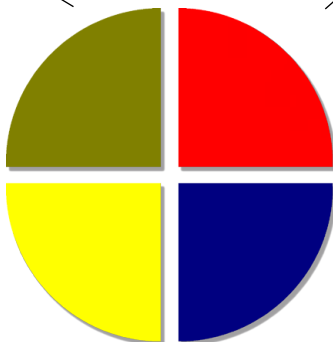
### Mechanical action: 25%



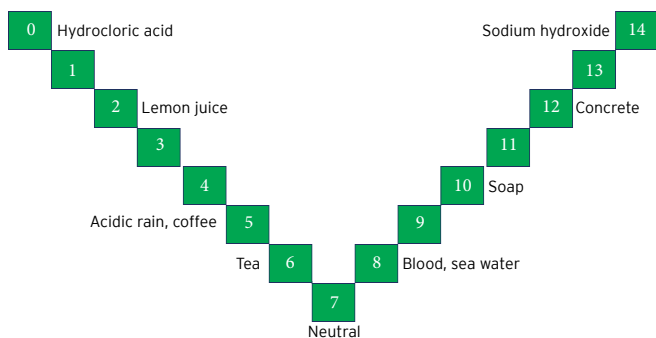
Finding and using the correct equipment to achieve the desired result in a better and fastest way. Besides, some stones can't be cleaned without using the correct machines; in some case, due to the size of area to be cleaned, without appropriate machine it is not possible to make a satisfactory

### Chemical action: 25 %

It is very important to choose the correct chemical, because stones have different hardness, different pH and different reaction to different chemical compounds.



## The PH scale



### Acidic chemicals (pH from 0 to 6,5)

Must be used to clean "Dry dirt" like cement, rust, lime...

### Neutral chemicals (pH between 6,5 to 7,5)

Chemicals with neutral pH that do not damage floors

### Alkaline chemicals (pH from 7,5 to 14)

Must be used to clean "Greasy dirt" like oil, grease, smog, pollution. After this necessary consideration, we can analyze different situations that need different ways of action depending on:

Type of stone (marble, granite, sedimentary etc.)

Location (indoor, outdoor, floor, wall etc.)

Surface (small or big areas)

Traffic (private or public areas)

After making the stone clean, it also may be necessary to keep the stone shine.

## General procedures

Below are the steps that should be complied in order to make a correct treatment of natural stones:

## Cleaning after installation

One of the most important tasks is to clean the floor properly after it has been layed, in order to remove cement leftover and any remaining residues.

## Protection of the floor

Protection of floors is the way to preserve in time the original beauty of materials.

Natural stones have their own porosity; they have been created by nature so every stone has different chemical properties. In order to prevent staining, *Bellinzoni manufactures wide range of protective agents.*

## Maintenance

After protection it is necessary to proceed with an adequate maintenance program.

The maintenance program is different depending on the type of stone.

To clarify this idea we could use a similitude:

*"Natural stones have been created by nature like our skin; we take care of our skin by cleaning it with soaps and protect it by applying cream. Care of stones should be the same, use the correct soap and apply the correct chemical".*

## Renovation

Because of the traffic and trampling that stone has to support, sometimes marks and scratches appear on the floor.

In this case, it may be necessary to renew the original stone look by using specific chemicals or tools that provide longer life to the stone.

## Polished floors

### Marble, travertine , terrazzo and polishable limestones

Following information for maintenance of polished floors are applicable to polished marble, travertine, engineered stones (or agglomerated stones), terrazzo and polishable limestone. In order to make easy description of maintenance, all stones will be referred as marble.

#### New installation

Very important after installation is to ensure that grout film and construction dirt are thoroughly removed from the stone surface. Clean well grout film after grouting using clean water and Marble Detergent "Lem-3" that, thanks to its appropriate pH, removes dirt and impurities without damaging the original shine. To make a good job a Scotch Brite® pad can be used to remove the grout film in excess. In case of very resistant soil our concentrate Cleaner Ultra Stripper can be used taking care of following instructions.

#### Base treatment

##### Private houses, offices, floors not larger than 500 sqm

#### Traditional maintenance system

##### Cleaning

Deep cleaning of marble without removing the natural sheen or damaging the surface has always been a problem. LEM 3 is a concentrated detergent to clean marble. Special for resistant dirt.

Clean the floor using Detergent LEM 3. Dilute 1:20 in water and cleaning can be done using a mop or a cleaning cloth.

##### To keep the original floor shine

To keep the original floor shine, we suggest applying an emulsified specific liquid wax, LIQUID WAX RR/1, every 2-3 months. Emulsified liquid wax studied for maintenance of floors made of natural stones as marble, granite, limestone, sandstone, terrazzo, agglomerated and engineered stones. Its formula is based on natural and synthetic waxes. It gives a brilliant and warm shining. RR/1 is the ideal product for to keep the floor's natural shine. It is a special liquid wax that, once applied, has good resistance to washing when regular detergents are used.

##### For easy and quick maintenance

For easy and quick maintenance of not too dirty floors, it is possible to use our product CLEAN & POLISH L&L on a daily maintenance basis.

Dilute the product 1:30 – 1:50 in warm water and apply using a mop. L&L cleans and polishes in one step.

##### Recommended Equipment:



#### Maintenance system for small high traffic areas or damaged floors

##### Cleaning

##### Cleaner ULTRA-STRIPPER

Highly efficient detergent for every type of dirt: grease, smog, oily stains. It is excellent to remove very resistant metallic, acrylic and solvent based waxes from floors and walls and it is also suitable for deep cleaning of floors before polishing. Also useful to clean tile joints and gaps.

##### Recommended Equipment:



#### Polishing

##### Crystallizer VETRO-GLASS

Product for the base crystallization of natural calcareous floors, terrazzo and resin marble. It hardens the surface giving a long-lasting polish, similar to the polish obtained with conventional factory polisher. The liquid formula and the easy "one step job" allow to reduce working time and avoid eventual grinding of the floor.

##### Recommended Equipment:



## Maintenance

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### Recommended Equipment:



## Big areas more than 500 sqm, cinemas, shopping centre, airports

Treatment of above mentioned floors has to be done using a specific wax polisher that gives protection, resistance to traffic, abrasion giving a good shine to the treated floor. In order to maintain shine and protection daily maintenance (or every two days depends of traffic and season) has to be done with special maintenance products. Every week is necessary to clean deeply the floor with special detergent formulated to clean marble.

### Cleaning

Because of the dimension of the floor it is necessary to use appropriate equipment and the right chemical.

After protecting the floor, the recommended maintenance routine is to use our **CLEAN & POLISH L&L** with the scrubbing machine. Pour the product **CLEAN & POLISH L&L** directly into the machine tank. Dilute 1:50 in water and proceed with cleaning the surface.

Scrubbing machine choice depends on the dimension of area to be maintained.

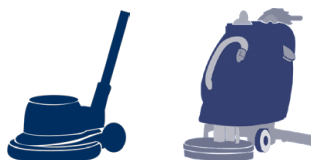
Sometime stains from food residuals, organic soil, etc. may remain on the floor although the stone has been already protected by a sealer.

It is suggested to clean the spots using **ULTRA STRIPPER** diluted 1:20 with warm water.

Clean manually with a mop or sponge or mechanically using a single disc polishing machine.

*It is necessary to clean thoroughly the entire floor every three to four months (i.e. stripping) with **DETERGENT DECER- DOS** or **ULTRA STRIPPER** diluted 1:20 with water using the scrubbing machine.*

### Recommended Equipment:



## Renovation

Sometime due to the heavy traffic that floors have to support, the surface can be damaged by the abrasive action made by trolley, shoes, sand, dust etc.

Typical problems are lines, scratches, and shine loss.

Depending on the seriousness of damage it is possible to restore the original aspect of the floor using appropriate chemicals, tools and machineries.

## How to renew the lost shine

Independently on the correct practice described on the previous points, the loss of shine is caused by the abrasive action (i.e. trampling, trolley etc).

This abrasive action is similar to sand-paper damaging the substrate because it removes microns of material.

Such damages make the floor look dull and off-colour; these defects can not be restored by regular maintaining products alone.

In such cases it is necessary to use the **POLISHING GEL "EUREKA"** for granite which allows the stone to re-shine in one step.

Wash the floor thoroughly using a single-disc machine equipped with appropriate disk in order to remove all dirt, residues of old waxes and other chemicals (we recommend using use our Ultrastripper).

Rinse very well and dry up the floor with a vacuum.

Pour a small quantity (around 30 gr. - 1 oz.) of **"EUREKA"** directly onto the floor, under the natural fiber disk, dampen slightly and then work the product with the single disc machine (speed 150-230 rpm) weighing minimum 30 Kg (66 lbs.) or a polishing-grinding machine over around 1-2 sqm (15-20 sq. ft) of floor surface.

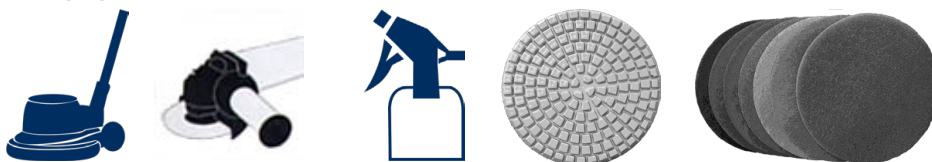
Nebulize or pour water in case the gel dries up too quickly during operation. Distribute the product evenly and keep on working the surface until **"EUREKA"** is dried and until the desired shine is obtained.

In case of more serious damages including scratches and complete dullness we recommend to use our Fibrilux pad before Eureka Granite gel.

The **FIBRALUX PADS** or **DIAZONE** must be used under the floor scrubbing machine.

There is a choice of various grits from #1 to #7; the choice of grits number to be used has to be made after assessing the floor damage.

### Recommended Equipments:



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#### Note





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