



Crystallization Treatment Of Marble Floor

Promising Flooring Material Limited
PFM Imp. & Exp. Co., Ltd.

Why Need Crystallization?



Nowadays, stone floor is very often using in luxury estate and hotel, especially marble, always presenting the high end.



But it's very easy to damage a polished marble surface.

For example, splash a glass of wine, juice, orange or cola liquid on the surface, or after a long time use.

A reckless scratch on the surface by accident. A small neglect can leave stains and irremovable. It's difficult to fix it by using normal detergents.

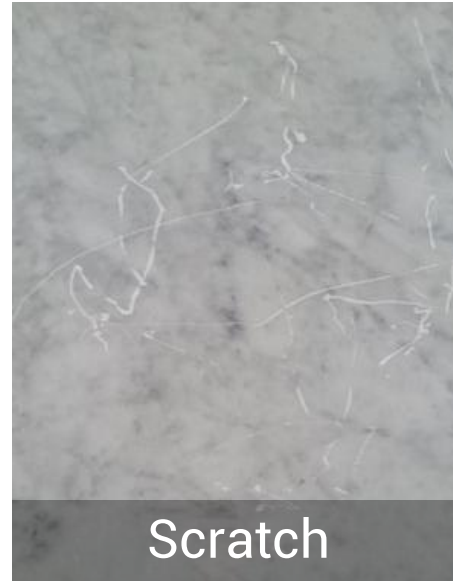
We think we've damaged marble surface forever!

What to do with it?

Fortunately, after many years' improvement, stone industry created a better way to avoid the marble surface from absorb the stains into it and scratch on the surface.

----- It is crystallization treatment

Damages and Pollutions



Scratch



Oil



Liquid

What Is Crystallization?

Crystallization treatment (also known as re-crystallization or vitrification) is actually a chemical process which is currently the most ideal maintenance method of stone surface.



Principle

It is to use the crystallization treatment agent and the heavy-duty processor, under the dual action of chemical and physical, to form a hard and dense crystallization layer on the surface which not easy to be damaged and ensure the essential properties of the stone.

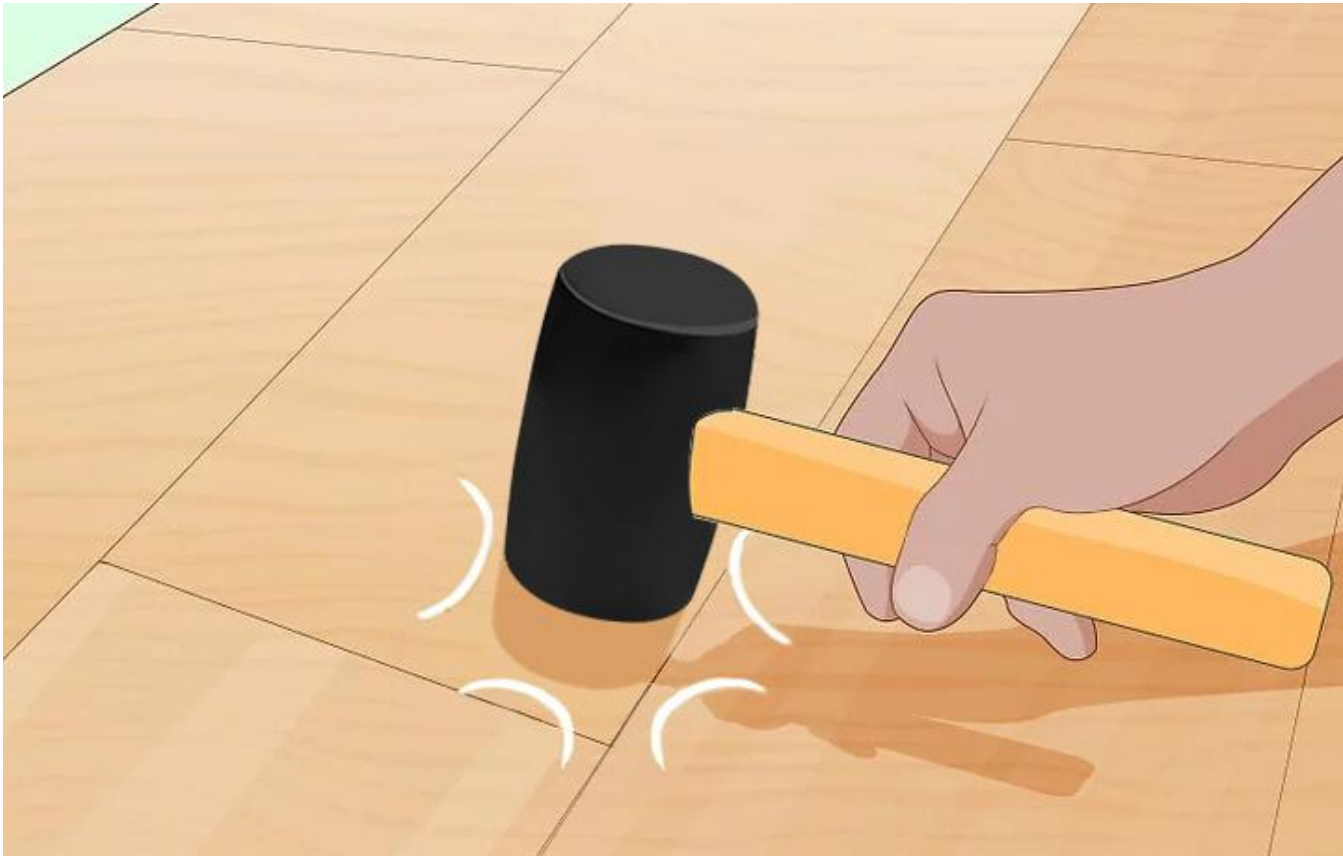
Function

1. To protect the stone surface from pollutants and scratches;
2. Aims to give more value to the marble, as it takes on a brighter appearance;
3. This technique can be used on any type of floor in marble, granite, limestone and travertine, for the finishing of new surfaces or the restoration of worn floors;
4. Crystallization has a lower cost than traditional polishing process.

Crystallization Process

total 8 steps

Step 1: Check the Flooring Before Crystallization



A very important step is to check the quality of stone flooring on the ground. If there is empty space between the stone and the ground, the quality of the crystallization will be affected.

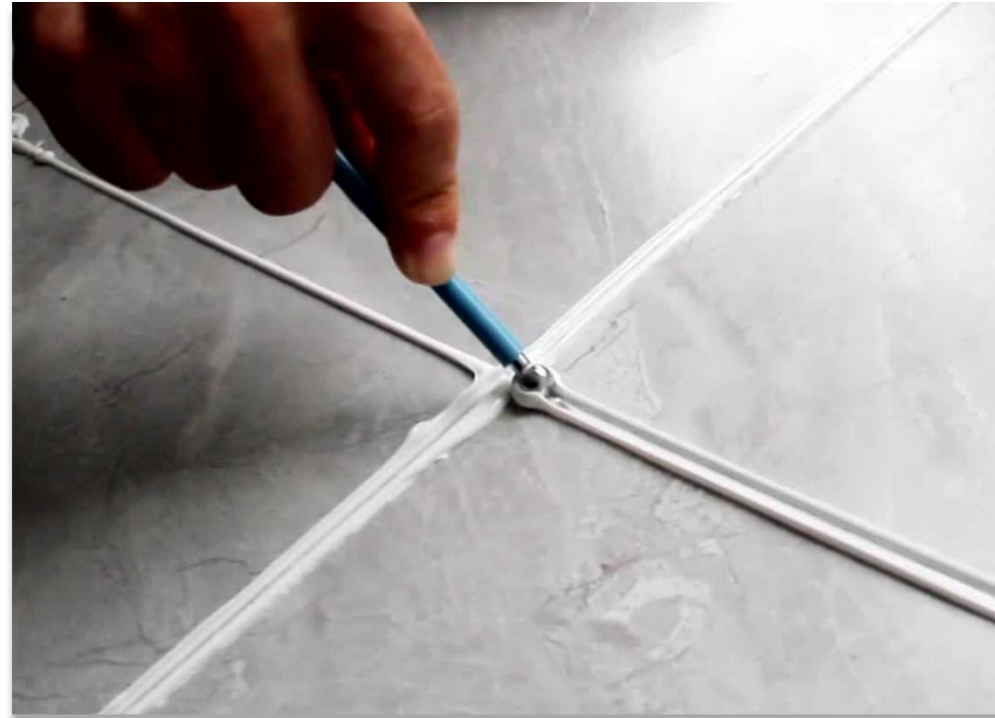
Step 2: Preparation And Cleaning of the Stone Floor



Before the crystallization treatment, to ensure the finished stone floor is flat, no color difference, the diagonal of each stone is flush. Everything on the floor must be cleaned up with dry mop, no sand and impurities on it.

Step 3: Repair The Stone Tiles & Gaps

After the overall cleaning, the small spots on each stone and the gaps between the stones have to be repaired with the marble glue. And the marble glue must be dried and clean up before the grinding process.



Step 4: Grinding of Overall Floor

After the marble glue is dried, grinding the overall floor horizontally. The grinding focus including the diagonal between the stones and the edge near the wall and decorations. The first time grinding is finished. Fixed the gaps with marble glue again, and continue the second time grinding, and then use the grinding machine with the diamond polishing pads from coarse to fine (150#, 300#, 500#, 800#, 1000#, 1500#, 2000#), a total of seven times of grinding and polishing to be completed, not until the floor is flat and smooth. Finally, do the re-polishing with steel wool, and the polishing degree reaches the brightness requirement (70 degrees), till there is no obvious gap between the stones.



Step 5: Drying Treatment



After the grinding is completed, we have to absorb the water with suction machine and dry with floor drying machine. If the construction time is permitted, it can be also dry naturally and keep the stone surface dry.

Step 6: Crystallization Treatment

Mixed the K2 and K3 liquid with water, and sprinkle it evenly on the floor, then use the multifunctional washing machine with 3M red scouring pad to polish (washing machine turned to 175 rpm/min with 45KG weights). Under the effect of heat energy with the chemical material, the crystallization will be formed on the stone surface.

Like the below video : <https://youtu.be/lOdA-2GNv2c>



Step 7: Inspection And Cleaning



When the crystallization is finished, use the suction machine to absorb the water and residue on the floor.

Step 8: Acceptance Criteria

1. The finished surface of crystallization is clean, flat, strong, bright and smooth, with color consistency, no cracks on the surface, and no unevenness.
2. The finished surface of crystallization must be evenly processed, highly water resistance and meet the hardness requirement of the product, especially the floor edge of buildings and decorations.
3. All the materials used for crystallization treatment must meet the design requirements, and have product certification and inspection report.





Maintenance



Daily Maintenance



1. Dust Mop.

Removing the grit and dirt from your floor on a regular basis is key to protect it. Be sure to clean the dust mop after every use so as to not reapply the dirt the next time.

2. Use Mats and Rugs.

In high traffic areas and at entry points, use area rugs or runners, and wipe your feet before entry to make sure the rug has a non-skid backing for safety.

3. Vacuum Cleaner Warnings.

If you want to use a vacuum cleaner on your marble floor, be sure to use only brush attachments, not plastic or metal attachments.

4. Blot up Spills Quickly.

Do not wipe the spill, as it will spread the liquid to other areas. Once blotted, flush the area with a solution of a mild dish soap and water. Wipe clean to remove solution, and dry thoroughly with a soft cloth.



Annual Maintenance

After a long period of friction, the marble surface will lose mirror cluster. Based on the floor situation, the general recommendation maintenance is **1-2 years** to do the crystallization Treatment.



Recommend Tool & Accessories



Crystallization Tool & Accessories



Vitrification Liquid For Dark Marble



Pink Liquid Crystallizer



Sealer & Polishing Product



Polishing & Grinding Machine



Suction Machine



Marble Cutting Machine



Dry Polishing Pads



Portable Polishing Machine



Marble Glue



3M Steel Wool



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