MARBLECLEANING.ORG

The Only Consumer Portal to the Stone Industry Establishment

This article was kindly donated to marblecleaning.org by

The Educational Division of
MB STONE RESTORATION & SUPPLY, INC.
www.mbstone.com

Maintenance of High-Traffic Polished Stone Floors

The maintenance of commercial high-traffic polished marble and granite floors has always been a major issue within the subject of the maintenance of polished stone surfaces. It makes sense: the occurring condition of high-foot traffic is the cause of fast-setting and unsightly wear and tear patterns.

Considering that polished stone is in fact **bare stone**, the solution to the problem is not easy. The first groups to be faced with such an "unusual" and outright "weird" problem were the janitorial companies in charge of the maintenance of various buildings with polished stone floors. Of course the immediate approach was to coat those floors with the type of topical finishes janitorial companies are used to dealing with; that is thermoplastic, acrylic, metal-interlock, etc. – all of the polymeric group of chemicals. The results were dismaying. The polymeric finishes available to janitorial companies, would A) make the natural stone floor look like plastic, and B) would require routine stripping and re-applications, a harsh procedure that no natural stone floor takes happily.

What to do?

It soon turned out that the way to actually **maintain** a polished stone floor does not exist. It was **restoration** all along, a procedure that just so happens to represent the very pinnacle of all stone related activities, because by not being a standard procedure (different marbles require different approaches) it's the one that demands the utmost professionalism and in-depth knowledge of stone. The specifiers who designed the building didn't know that, the dealer who supplied the stone didn't know that (or, if they did, couldn't care less), the setting contractor didn't know that (or, again, if they did, couldn't care less), and, finally, the maintenance managers didn't know that. Nor could they accept it. In fact, true stone professionals are very few and far between (therefore hard-to find), and, very definitely, way too expensive in relation to the budget assigned to the maintenance of those shiny floors! What's more, most of the people in charge of the maintenance of buildings with polished stone floors don't have the specific education necessary to understand the true nature of the problem. They are only trained to deal with janitorial issues through maintenance companies and various salesmen.

The salesmen, faced with the problems submitted to them, detected the opportunity right away and they set themselves off to find the (profitable) solution. They did contact a few true stone craftsmen, but what they heard from them wouldn't fit their bill: simply too complicated! They **had** to find an easy solution, and find it they did!

Or did they … well … sort of! … All right … not quite … but for a while they had something to sell and make money from!

The past couple of decades witnessed the surge and demise of the "Miracle-in-a-bottle", "The-easy-way-to-maintain-polished-stone-floors-that-even-an-idiot-can-do" that was (and still is,

even if in ever-decreasing volume) promoted under the fancy names of "crystallization", "vetrification" and some other gimmicky name like that. There is no substitute for professionalism, and nobody can make a complex issue such as petrography turn into something that can be bottled, or explained in a two-page fancy brochure. Countless chemists from all over the world approached the problem and failed. Why? Because they've been approaching the problem in the wrong way, in a way that has no solution. Think of a fly that wants to get out of a room. It sees light ahead and there it goes… just to find out that's a shut windowpane! Is there a solution to the problem of getting out of the room? Of course there is: either open the window, or get the door!! But the fly does not have enough intelligence to realize that, so it keeps hitting that glass over and over and over, until it dies from exhaustion!

There's no way on earth to treat chemically with one formula all the marbles out there (let alone the "granites")! Just because they are labelled as "marble" doesn't mean that they are all the same, just with a variety of colours. In fact, they are different most of the time! Sometimes even the same marble coming from the same quarry – but a different corner of it – may present differences and require – even if only slightly – different treatments!

Inasmuch as the chemists who approached the problem were all scientists, their knowledge didn't expand into petrography. The only intelligence they could count on was that marble is mostly made by Calcite (Calcium Carbonate, CaCo3), and they simply took it from there. Now, for starters, to be classified as a geological marble, a stone has to be made by at least 60% Calcite, which means that 40% "something else" (mostly different minerals) is allowed. It shouldn't come as a surprise that 40% of something else can (and in most cases does) makes quite a difference! Second, many mercantile marbles are stones that are different from geological marble. For instance, we have Dolomitic stones, Serpentinite, Aragonite-based stone, Ophicalcite, etc., all traded as marble. Their content of Calcite varies from very little, to modified versions of it, to none whatever. And what about the "Breccias", which are Mother Nature-made conglomerates with possibly various minerals within? Can we even think to treat all those different stones the same way, just because the invoice of the distributors labels them as "marble"? Hardly! Once again, there's no substitute for professionalism and true knowledge!

It then looks like there's no solution. Either it's restoration all the time or… just give it up!

Well, remember the fly? Just because the window is shut doesn't mean that's impossible to exit the room. All it takes is a different approach and some creative, lateral thinking.

We've already determined that routine restoration requires too much professionalism and can't be canned. The idea is not feasible (not enough true professionals) and not affordable, either. What's more, there's no such a thing as a single formula for every situation. Even our company, that was able to formulate a polishing powder that's as universal as they come, and (in most instances) delivers results far better than any other product on the market, can't claim (and it fact it does not claim) to have found the "magic solution". The same polishing powder may have to be used in many different ways (which actually alters the formula right during its application) to accommodate the different requirements of the different stones. It can indeed be considered a gigantic and unique technical achievement, also because it at least doubles – in a very sound way – the productivity of other polishing and "polishing" methods, but it is certainly not a substitute for the still necessary, in-depth knowledge of stone. Furthermore, it can't be used as a routine maintenance.

So, how can we open the window or get to the door?

ASSIGN THE CHEMISTS A TASK THAT THEY ***CAN*** PERFORM!

As simple as that!

We asked ourselves a couple of questions first:

1. What is a universal procedure to maintain high-traffic, hard-surfaces floors (regardless of their nature) that any professional janitor can use?
2. Why can't the same procedure be applied to polished marble and granite floors?

The answer to the first question was, inevitably, to coat the floor with a protective, sacrificial floor finish (wax or other more high-tech products) and then maintain ***that*** finish. If one thinks for a minute, it's the only concept that makes any sense.

The answer to the second question came in as: Non-film-forming topical finishes (waxes) are not the proper product for high-traffic situations (actually they could be, but they require too high a frequency of service). Most film-forming topical floor finishes (thermoplastic, metal-interlock, acrylic, etc. – polymeric in short) make the floor look like plastic, they build-up and eventually require routine stripping and re-application (no good!). It emerged, however, that the reason why all these polymeric finishes look like plastic is because of their inherent macro-molecular structure. All polymeric floor finishes on the market are made of huge multilink molecules.

At this point a third question came up: "How can we solve ***this*** problem?"

We're quite far from the original question, are we not! In fact, we're getting away from the shut window and heading toward the door!

Now the chemists are on their own turf. They don't have to get involved into an additional science only to learn (if they ever did) that there's no practical solution to the problem. All they have to do is to "play with their own toys!" It still may take a genius to turn an inherently unfriendly product into a friendly one, but even the genius could never overcome with one formula all the natural differences of the different stones by trying to find a treatment that would work ***in*** them, rather than ***on*** them!

When writing technical papers like this one (even in an editorial format and style), this writer usually makes it his rule to stay away for an outright advertisement of products made by the company (MB Stone Restoration & Supply, Inc.) that he founded. He feels it's more ethical and scientifically credible to mention a ***group of similar products.*** But in this particular instance he just can't obey such a self-imposed rule. To the best of his knowledge, in fact, we are the only company in the field to have formulated a product – a cutting-edge technology micro-molecular co-polymeric finish – that does bond to polished stone surfaces and does not look like plastic! It wasn't easy. Our genius chemist was actually able to find a special strain of micro-molecular polymer that would overcome all the problems related to the products available to maintenance crews.

When properly applied, the product is totally invisible (no swirls, no orange-peel, no "plasticky" look, no visible build-up), but it does offer a very effective, heavy-duty protection, and it's very anti-slip. What's more, if properly managed over its routine maintenance, it will never need stripping.

Why?

Because due to its micro-molecule structure does not build thick enough to deeply trap soil, which is what eventually will call for a tripping job. We could go as far as saying that the product builds from top down, rather than from the bottom up. Its use may be considered out of the mainstream (and it is so), but it does not take a genius or more than half an hour of training to adjust to the new methodology. After all, all is needed is a microfiber mop (preferred) and a regular 1500 RPM floor burnisher with a natural fibre polishing pad.

There: we finally got out of the room!

To learn more about the product involved and see pictures of floors successfully treated with it, inquire at: thestonedoctor@optusnet.com.au