

Why The Safe Solution® Will Not Damage Ceramic Tile Floors

First, let's discuss the methods used to measure the thickness of ceramic tiles. The micrometre (micron) is commonly employed to measure the thickness or diameter of microscopic objects, such as microorganisms and colloidal particles. Minute distances - for example, the wavelengths of infrared radiation are given in micrometres and often the thickness of ceramic tile glazes. (MICROMETRE also called "Micron", metric unit of measure for length equal to 0.001 mm or 1/1000th. of a millimetre... or about 0.000039 or 1/25,406.5 of an inch)

To understand how minutely the Safe Solution® affects the surface of a tile, one must understand the surface of the tile itself.

The surfaces of ceramic tiles are either glazed or unglazed, and have a determined hardness which is rated by the Mohs hardness scale. There's a BIG difference between glazed and unglazed tile surfaces. Glazes are typically dense and impervious glass-like surfaces. A commercial Mohs 8 hardness glazed tile surface is often between 300 microns up to some dry glaze applications of around 1200 microns thick. Normal footwear will remove about 60 microns of the tile surface within a 2 to 3 year span.

What does this mean?

It means that under regular traffic, maintenance, and cleaning conditions, a higher quality glazed ceramic tile has a lifespan of between 10 to 40 years.

There are many glazed ceramic 'Monocottura' (single fired) floor tiles that are NOT commercial traffic higher quality glazed tiles that are being used in entrances of apartments, residential kitchens, bakeries, coffee shops, etc. - i.e. locations that have demanding traffic but are not considered high traffic areas. These lesser tiles have Mohs 6 hardness glazes, not as hard, and are only 250 microns thick. Normal footwear will remove about 70 microns of the tile surface within a 2 to 3 year span.

What does this mean?

It means that under regular traffic, maintenance, and cleaning conditions, a lesser quality, untreated glazed ceramic tile has a lifespan of between 8 to 10 years. If used improperly, under heavier traffic conditions, these tiles will last approx. 5 to 7 years.

Poor treatment and maintenance of these glazed tiles can be a problem and visually is very noticeable. Some of the harsher anti-slip treatment formulations in the market place are too aggressive on the surface glaze, reducing the lifespan by another couple of years.

UNGLAZED ceramic tiles are far more durable. They also do not have a glaze that wears out. Quality tiles are uniform throughout their bisque or biscuit (body) and have a Mohs 7 hardness.

A commercial UNGLAZED tile with a Mohs 7 hardness is often between 9 to 12.5 millimetres thick. Normal footwear will remove about 65 microns of the tiles surface within a 2 to 3 year span.

What does this mean?

It means that under heavier traffic, maintenance, and cleaning conditions, quality vitrified unglazed ceramic, porcelain or clinker/quarry tiles, have a lifespan of between 275 to 575 years. In most cases the buildings will be long gone before these tiles will be replaced from wear.

So, why is it that we hear "TILES LAST FOREVER"?

Truly, the right tile for the right application will last MUCH longer. For commercial kitchens and heavy traffic floor applications, an extruded clinker/quarry, stoneware or porcelain UNGLAZED tile is recommended. This is what is most commonly used. If they have chosen another tile, such as a GLAZED porcelain or 'Monocottura' tile, likely they are less concerned with wear-ability and durability than they are with clean-ability.

The Safe Solution® has been specially formulated to work gently on glazed and unglazed tile surfaces, yet effectively enough to create sufficient slip resistance, without over diminishing the tiles normal lifespan.

The bottom line is the slip-fall concern to the public and to employees. The multi-billion dollars cost of this slip-fall dilemma, to business owners and to us all, must far out way the concern of the wear factor to the tile.

The Safe Solution® anti-slip treatment and follow-up Floor Safety Maintenance Program™ dramatically reduces the costs of slip-fall accidents and, in doing so, the wear factor is most definitely negligible.

Global Safe Technologies Inc.

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