



Sealer Reference Guide

DISCLAIMER: It should always be considered that conditions vary from jobsite to jobsite. Always consult your terrazzo contractor for the most up to date information.

When identifying which sealer is best for the building and End User, the following should be considered:

- 1) End use of the Area and Other Possible Elements (Lobby, Operating Room, Bar, etc)
- 2) Amount of Foot Traffic
- 3) How often and how easily the building will be refinished, or sealer removed and replaced

The longevity of terrazzo floors is heavily dependent upon regularly scheduled and recommended maintenance to prevent permanent damage and discoloration from normal wear and tear. In this overview, three approaches to protecting terrazzo will be discussed in minor detail:

- 1) Permanent film-forming coatings
- 2) Removable film-forming coatings
- 3) Honing/polishing in combination with silicate-based penetrating sealers (densification)

Permanent and Removable Film Forming Coatings

One way to extend the life and improve the appearance of terrazzo floors is through applying a topical film-forming sealer. Topical film-forming sealers fall into two categories: permanent and removable.

Permanent sealers cannot be chemically stripped off the floor (examples are polyurethane or epoxy-based coatings) while removable sealers can be stripped (examples are polystyrene and/or polyacrylic coatings, commonly referred to as floor finishes).

With film-forming coatings, there is a protective and durable film covering the entire floor. This film takes the brunt of wear and tear and is not only shiny and extremely durable, but it also prevents direct contact of pedestrian foot traffic and lightweight equipment from ever actually contacting the terrazzo. They also provide a durable, protective coating that seals off the pores of the terrazzo. By sealing the pores of the floor, liquid spills, dust, dirt, and other soils are prevented from entering the upper layers of the terrazzo and causing permanent damage and discoloration.

When film-forming coatings are properly maintained, the terrazzo underneath can last indefinitely. Additionally, film-forming coatings produced by reputable manufacturers are certified for slip resistance through an analytical method known as ASTM D2047 – the only industry standard that correlates real world slips and falls to a laboratory measure of friction for coated surfaces. This standard is a powerful tool and safety net for facilities during slip and fall litigation.

In the case of conventional floor finishes (sometimes incorrectly referred to as “floor waxes”), this protective, sacrificial film is also repairable and chemically removable when necessary, leaving the terrazzo looking like

new after recoating. Simple ways to restore the appearance of conventional floor finishes include high speed burnishing, spray buffing, and top scrubbing/recoating.

Honing/polishing in combination with silicate-based penetrating sealers (densification)

Another approach to extend life and improve the appearance of terrazzo is through honing (polishing). Frequently, immediately following the polishing process, terrazzo floors are then “densified” using a silicate-based penetrating sealer. The process of densifying the freshly polished terrazzo reduces floor porosity which, in turn, helps to repel liquid stains and other soils. Densification may not work on all epoxy-based terrazzo floors, including those with a large percentage of glass aggregate.

In a honing/penetrating sealer routine, there is no protective/sacrificial coating. The upper layers of the terrazzo are physically abraded away using successively finer grit honing pads to achieve a semi-gloss to glossy appearance and then the floor is densified using a silicate-based penetrating sealer (permanent). When the surface of the floor is scratched or damaged, the only method of repair is to re-hone the floor until the damage is removed followed by re-densification.

Some pros/cons of the mainstream approaches to protecting terrazzo are outlined below:

Characteristic	Permanent film-forming coatings	Removable film-forming coatings	Honing/densifier routine
Gloss	Highest gloss possible for floor	Highest gloss possible for floor	High gloss possible
Sacrificial, protective film	Yes	Yes	No
Repairability	Limited physical repairability	Highly repairable	Limited physical repairability
Slip resistance	Can be guaranteed via ASTM D2047	Can be guaranteed via ASTM D2047	Unknown based on ASTM D2047

At the end of the day, there’s no such thing as a maintenance-free floor. The basics always need to be covered no matter what approach is taken to protect terrazzo – diligent and daily dust mopping, walk-off mats at entrances, consistent damp mopping/auto scrubbing, etc.

The COF of a terrazzo is only dependent on the sealer. The sealer will cover and profile from the grinding procedure. Per ANSI 326.3, check with the sealer supplier for the COF and for the method of determining such.

Best Ways to Clean Stains

First, knowing which type of Terrazzo you have, Epoxy terrazzo can stain less than Cement Terrazzo. Second, knowing what caused the stain. It is always best to clean up spills and stains as quickly as possible. The longer they sit on the floor, the higher the likelihood they will become permanent.

For Alcoholic Beverages, Soft Drinks, Acidic Foods, such as Fruit, Coffee, Grease, Ink and Paint

- 1) Neutral pH Cleaner with Warm Water and Scrub Area
- 2) If it does not work, wipe with Denatured Alcohol
- 3) If neither works, a chemical strip and reseal or a mechanical repolish and reseal may be needed. Your NTMA contractor and/or janitorial company/staff should be consulted.