



Your Single Source For Innovative
Architectural Concrete Solutions

BOMANITE CUSTOM POLISHING SYSTEMS

Technical Bulletin

After 50 years, how do you top Bomanite? With a revolution in concrete floor finishes. After five decades, we didn't think we could top Bomanite, known as the first and finest cast-in-place concrete. But the patented technology of Bomanite Custom Polishing Systems, paired with our long-established color and craftsmanship, delivers the industry's best concrete floor finishes.

While the polish chemically reacts with the concrete to lock in the color, the mechanical application closes the surface to keep out contaminants. One application, permanent results. Lustrous color, protected by a tight, beautiful sheen. Available in finishes from satin to gorgeous gloss, Bomanite Custom Polishing Systems offer exceptional resistance to slipping, abrasion and impact. Finished surfaces also repel water and oil and are dust-proof. Superior to limited-life coatings, these finishes do not require replacement, recoating or waxing. The non-toxic, non-flammable and odorless application is environmentally friendly. And surface care is user-friendly as routine cleaning will maintain luster. Superior craftsmanship has always defined the Bomanite brand. Bomanite Custom Polishing Systems are available exclusively by Bomanite Licensed Contractors trained and certified to install these finishing systems. Contact Bomanite to consult with one of our licensed, certified partners near you who can recommend and install the perfect, permanent, custom finish from our collection.

FEATURES AND BENEFITS:

Minimal Maintenance
Greater Strength and Durability
Eliminates Dust from Efflorescence
Cost Effective
Design Flexibility

Abrasion and Scuff Resistant
Environmental Friendly, Safe and Economical
No Topical Coatings Necessary
Allergy Free
Light reflectivity

Common Flooring Finishes

Common hard floors can be divided into two categories; finishes that cover over the structural concrete substrate and finishes that utilize the structural concrete substrate as a finished surface. The most common interior retail and commercial hard floors that cover structural concrete substrate include Vinyl Composite Tile, Ceramic/Porcelain Tile, Hard Wood, terrazzo, and Carpet.

Vinyl Composite Tile

VCT is the most common hard floor finish utilized in retail and commercial construction. Most designers and owner's representatives are familiar with the life cycle costs of VCT, preparation, material, installation, maintenance, and replacement costs. The advantage of this product is the low up front material and installation costs. The limitation of this product is the high maintenance cost and relatively short life cycle. Initial construction budgets often force owners towards this finish.

Also lost is the challenge to replace older tiles with tiles that match and dealing with store resets where the tiles once hidden under store fixtures now sees the light of day like the rest of the floor. A privilege VCT enjoys is the "devil you know" benefit. Everyone knows, for the most part, what the down side of this material is and they can somewhat plan for it.

VCT has felt a significant impact from the 1999 VOC laws and the unexpected results of the concrete industry trying to accommodate the changes in polymer chemistry associated with VCT. As the concrete industry has strived to create "dryer" floors, this has led to a whole bundle of unexpected challenges: curling, shrinkage cracks, warping, higher alkalinity concrete due to low w:c (higher cement content). Also, the use of vapor retarders immediately under the slab have added to the constructability woes.

Maintenance

A challenge that faces the flooring industry is maintenance. All commercial floors require some measure of maintenance. It is here where the costs of maintenance begin to over take the cost of the installed floor. Waxing, stripping and sealing can be a large annual cost in addition to cleaning other surfaces. Also, some floors can be difficult to clean. Furthermore, waxes and strippers and cleaners create waste – waste that needs to be disposed into our environment.

Life Cycle Costs

Just like your car requires maintenance, so does your floor. Occasionally you have to change the oil, rotate the tires, and take it through the wash. There are other costs like insurance. You might get into an accident. And then there is wear and tear. Finally, you need to buy a new car. All these costs comprise the total cost of the floor. The same idea can be incorporated into a floor finish. There is a careful balance of installed cost, repairs, maintenance, and replacement cost all calculated in a life cycle analysis.

What is Concrete Polishing?

Polishing concrete is similar to sanding wood. Heavy duty polishing machines equipped with polycrystalline diamonds, progressively finer grits, are used to gradually grind down and polish concrete surfaces to the desired degree of shine and smoothness.

What is the Process or Procedure to Polish Concrete Floors?

The procedure for polishing concrete is quite simple. The polishing procedure includes a series of steps that mechanically and chemical flatten and harden the concrete surface. A rough grind removes old dirt and coatings from the concrete including mastics from carpet and VCT. Progressively finer grinds refine the rough floor to a flat level surface. In the third stage the floor is treated with a densifier to prepare it for diamond polishing/honing. Polishing/honing uses specially designed diamond tools with progressively finer abrasion. Final polishing/honing brings the floor to a durable high-gloss finish with no topical coatings.

Additional concrete sealers can be added to the concrete near the end of the process to increase stain resistance and enhance the aesthetic look. Polishing aids help in protection of the floor during the initial chemical development process, as well as offer increase protection. These sealers are all designed to be internal in nature and are not visible to the human eye.

The birth of concrete polishing came primarily from the floor maintenance industry. The introduction of color into polishing has developed in recent years as concrete professionals have entered the polishing industry with a new sense of concrete. Before the presence of concrete contractors, polished concrete was limited to industrial applications. Now the world of color is open to endless possibilities as integral pigments, topical chemical stains and dyes, cementitious overlays, and colorful aggregates are incorporated in the creative design.

Why Specify Polished Concrete?

The process of polished concrete produces many desirable effects. Initially, the polishing process was developed by the maintenance industry to reduce costs; a smooth and hard floor is a clean floor. The process of mechanically polishing and chemically densifying the concrete surface increases durability, light reflectivity, while lowering maintenance costs. These alone have propelled the polishing industry into a valuable market. The introduction of color has added aesthetic value and design flexibility. Let's not forget about the idea of sustainable architecture.

Polished concrete requires no topical coatings, such as waxes. Mechanical and chemical processes create dense surfaces that are resistant to abrasion, contamination, and staining. Moreover, because there is no impermeable film, it is not subject to Moisture Vapor Emission Rate issues. Due to the dense surface and low surface permeability, these floors are stain resistant. Again, they are not stain proof – no product is. The hard surface and ground aggregate finish does not show wear patterns. Because this is concrete, the floor does not yellow or discolor over time and UV exposure.

Finish Options

Renaissance by Bomanite



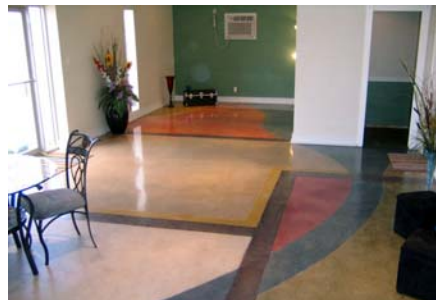
This system provides a lustrous finish to floors utilizing our premium Bomanite Integral Color. Color-saturation, the hallmark of our integrally colored floors, is unsurpassed with this one-time finish. Renaissance by Bomanite is the perfect finish for any newly designed surface.

Belcolore by Bomanite



Praised for brilliant color and extra-hard durability, Bomanite's color-hardened surfaces stand up to more traffic than ever before. This system chemically closes surface pores and mechanically polishes the floor, locking down color beneath an impenetrable shine.

Patène Teres by Bomanite



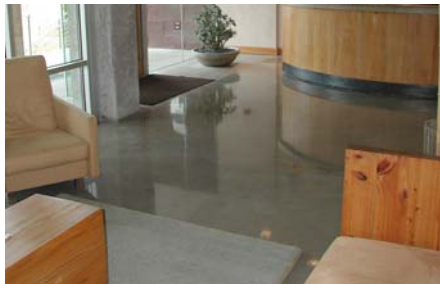
Reminiscent of the timeless look of terrazzo, Patène Teres by Bomanite utilizes a unique, topically applied coloration system to create one-of-a-kind floors.

Modena by Bomanite



Bomanite's family of restoration products makes old surfaces better than new. Used on top of high-strength, polymer-modified cement, this system transforms worn surfaces into beautiful walkways, courtyards and lobbies.

VitraFlor by Bomanite



Even the results on gray concrete are stunning. Applied to existing or new uncolored concrete, VitraFlor by Bomanite creates a beautiful, protective sheen.

LifeTime Floors by Bomanite



LifeTime Floors by Bomanite are produced with pre-engineered, specially blended products using a unique blend of traditional and hi-tech processes. LifeTime Floors by Bomanite offers two options for high-performance concrete floors:

Mosaic, designed for new construction of retail and commercial applications.

Artera, a decorative, honed concrete surface for retrofit applications over existing concrete floors.

Customs



Infuse glass or fossils, select your own pigmentation and aggregates, incorporate metal elements; help us reflect you. For those who desire a more complex appearance or wish to embolden their Bomanite element, then blends of glass aggregates may be to your desire. Recycled from re-claimed industrial use, a wide variety of colors and sizes from mirror to plate can be incorporated into the concrete mix. Once ground to exposure, the glass will take on a new tone from the encapsulating matrix and reflect the ambient lighting of the environment it is displayed in.

Do any images come to mind? Is the concrete element to be used as a statement, or to invite conversation? With precise computer guided or hand cut images, you can incorporate bold depictions of fantasy or cast a brand for permanent display.

Maintenance

How do I maintain a custom polished floor?

Consult the Bomanite Maintenance Schedule appropriate to the type of concrete selected and the finish applied. Visit www.bomanite.com for a complete listing of the Maintenance Schedules, or consult your local Bomanite Custom Polishing Licensed Contractor.

Warranty

This product is warranted to be of uniform quality within manufacturing tolerances. Since control is not exercised over its use, no warranty, expressed or implied, is made as to the effects of such use. Seller and manufacturer obligations under this warranty shall be limited to refunding the purchase price of that portion of the material proven to be defective. The user assumes all other risks and liabilities resulting from use of this product.