Bomanite®

CUSTOM POLISHING SYSTEMS

Target Field Stadium, MN
BCP System: Patène Teres

Imagine

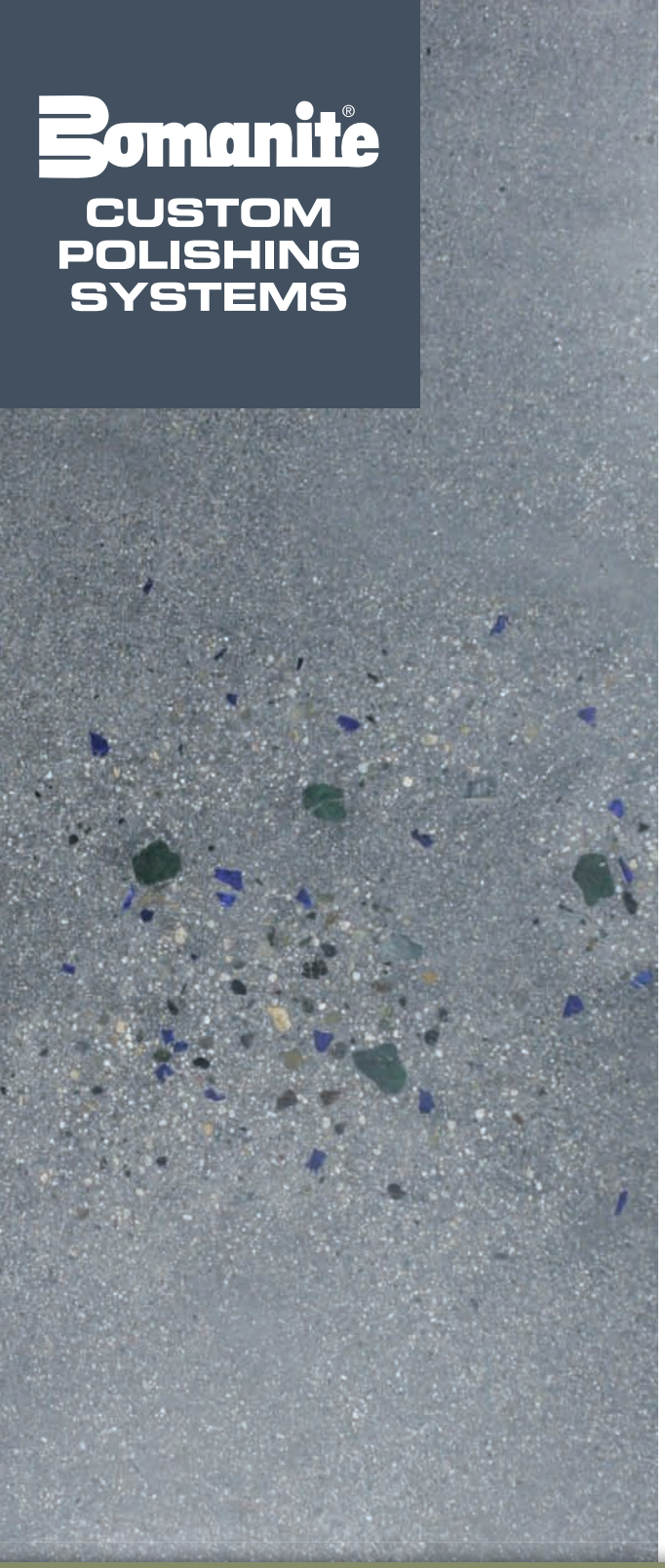
Bosque Farms Fire Department, NM
BCP System: VitraFlor

Compass Center, TX
BCP System: Patène Teres

Revolutionary Finishing Systems For Concrete Floors

Bomanite®

CUSTOM POLISHING SYSTEMS



What Makes Bomanite Custom Polishing Systems Different?

The exclusive technology behind Bomanite Custom Polishing Systems, paired with our long-established licensed installation network, delivers the industry's best concrete flooring systems. The Bomanite Custom Polishing products are formulated to produce highly architectural floors with long lasting results. Bomanite Custom Polishing licensees are trained and knowledgeable in all types of architectural concrete installations including the correct procedures for slab construction needed for quality polished concrete flooring. When you select a Bomanite Custom Polishing System you are specifying the finished flooring surface from initial consultation through construction to owner occupation and beyond.

Often times polished concrete is thought of as simply a shiny concrete floor. Floors with finishes or waxes that are burnished to a high gloss were considered being "polished". To some, any concrete that is chemically hardened and then burnished to a gloss finish is considered polished. When price, not *quality and longevity*, is the sole determination of product selection there is often a large difference in the application procedures and product selection. It is relatively easy and inexpensive to apply a wax or chemical hardener to a floor – but it is not what Bomanite considers polished concrete.

The average Bomanite Custom Polishing project focuses on grinding in order to provide the *best quality floor* while maximizing consumed product. Capitalizing on the hard aggregates, increased cement content and lower water-to-cement ratio in the compacted wear zone at the surface of the concrete is just one of the factors that makes a Bomanite polished floor *superior to other systems* both in retention of gloss and durability. Understanding concrete and capitalizing on its strengths while mitigating its weaknesses are keys to Bomanite Custom Polishing systems.

Bomanite has been utilizing *Lithium Silicate technology* in its product line for over 20 years. One of our flagship products, Con-Shield is a precursor to today's chemical hardening compounds. Lithium Silicate makes concrete harder by reacting with Calcium Hydroxide to produce Calcium Silica Hydrate, the crystalline binder that holds

Exposure Levels of Aggregate in Bomanite Custom Polishing Systems

Paste Polished

Minimal /No Exposure

Sand Polished

Light

Sand Polished

Medium

Stone Polished

Heavy

concrete together. With the *industry's highest reactive solids content*, complex silane additives for improved chemical resistance and a lower viscosity than typical concrete hardeners, floors treated with Bomanite's primary densifier for polished concrete, Stabilizer Pro, exhibits *greater density and wear resistance*.

To further *protect and enhance* Bomanite Custom Polished floors, Bomanite VitraFinish is applied at the end of the polishing process. A *penetrating reactive sealer* that contains specialized stain and abrasion resistant polymers, Bomanite VitraFinish provides a light reflective, high gloss finish that eliminates the use of wax or other conventional finishes.

"Bomanite defines standard architectural polished concrete as having sand exposure in the concrete surface at a minimum with larger aggregates often exposed due to floor quality or desired aesthetics."

There are three basic exposure levels of aggregate in Bomanite Custom Polishing systems. *Paste polished* architectural concrete is concrete that has been very lightly ground with only *fine sand exposure* and some finishing marks present upon completion. *Sand polished* includes *average sized sands* with occasional partial exposure of larger aggregate. This is considered the standard exposure level when polishing concrete due to the removal of some deficiencies coupled with the final appearance. *Stone polished* is a deep grind look similar to a coarse terrazzo floor with a cross-section of the *top sized aggregates* visible at the concrete surface.

Superior craftsmanship has always defined the Bomanite brand and sets us apart from other polishing contractors or polishing products manufacturers. The Bomanite Custom Polishing System is available only through the contractually *licensed Bomanite network*, and exclusively by Bomanite contractors trained and certified to install Bomanite Custom Polishing systems throughout the U.S. and Canada.

As the architectural concrete industry leader for *over 60 years*, Bomanite has the coloring systems to prove it. Bomanite Custom Polishing systems are available in an array of colors and appearances. We have broken the main Custom Polishing systems into application and product specific segments allowing for *comprehensive specification* of the finished product. Custom processes are available for projects that require floors that go the extra distance.

Mazopiya Grocery Store, MN
BCP System: Patène Teres

Fresno Police Training Facility, CA
BCP System: Patène Teres

Colorado Mountain College, CO
BCP System: Patène Teres

Upper Iowa University, IA
BCP System: Patène Teres

Bomanite Custom Polishing Systems

VitraFlor by Bomanite™

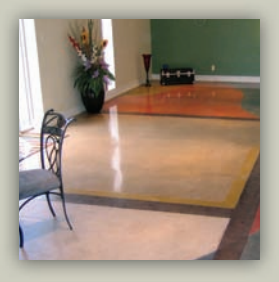
Even the results on gray concrete can be stunning. Utilized on existing or new uncolored concrete, the Bomanite Custom Polishing System VitraFlor is the standard on which all other Bomanite systems are based. Now even ordinary concrete can live up to Bomanite's promise that all concrete can be functional and stylish. The VitraFlor system consists of initial grinding, chemical hardening with Bomanite Stabilizer Pro, honing and polishing with protection from Bomanite VitraFinish. VitraFlor is the most cost effective of all the Bomanite Custom Polishing systems. VitraFlor by Bomanite is intended primarily for new construction or major renovation projects.

- **Utilizes Uncolored Concrete**
- **Industrial Through Architectural**

Renaissance by Bomanite™

The Renaissance system incorporates Bomanite Integral Color into the concrete prior to placement and finishing of the floor. Once cured the concrete is processed as per the standard VitraFlor system. The primary benefit to Bomanite Renaissance is the simplicity of installation. With no topical dyes or products needed to achieve color in the floor, the process is much like polishing uncolored concrete. This makes the system more efficient to install compared to other more labor intensive coloring systems Renaissance by Bomanite is intended primarily for new construction or major renovation projects.

- **Color Throughout Concrete**
- **Basic Architectural Appearance**



Patène Teres by Bomanite™

The Patène Teres system utilizes Bomanite Chemical Stains and Bomanite Concrete Dyes to color fully cured concrete as part of the polishing process. The concrete slab typically starts out as uncolored gray or for some applications have Bomanite Integral Color in the concrete or had Bomanite Color Hardener applied to the surface during concrete placement and finishing. The floor is ground then stained or dyed and then processed as per the standard VitraFlor system. The primary benefit of Bomanite Patène Teres is the ability to add topical color to the concrete in a wide range of colors and looks. The use of skilled saw cutting techniques to achieve patterns or designs in conjunction with the Patène Teres process can transform concrete into art. From simple monotone shades through bright and vibrant colors, the final appearance can be metropolitan chic or variegated and rustic. Patène Teres by Bomanite is intended primarily for new construction or major renovation projects.

- **Widest Range of Design Variations**
- **Highly Architectural Appearance**

Modena by Bomanite™

The Modena system utilizes engineered Bomanite cementitious toppings containing fine decorative aggregates placed over a prepared concrete or wood floor. The topping is ground to reveal the sands and aggregates, and then processed as per the standard VitraFlor system. The primary benefit to Bomanite Modena is the ability to produce highly decorative floors with a much greater rate of installed product combined with a lower cost relative to terrazzo. In the event that a concrete floor was incorrectly installed or not appropriate for polishing, Modena can be a good option rather than completely removing and reinstalling the slab. Modena contains recycled powders and can incorporate recycled aggregates such as glass or porcelain along with regionally sourced materials if desired. Modena by Bomanite can be utilized for all types of construction projects.

- **Wide Range of Design Variations**
- **Highly Architectural Appearance**

Belcolore by Bomanite™

The Belcolore system incorporates Bomanite Color Hardener onto the surface of the concrete at the time of placement and finishing. The Color Hardener is broadcast over the concrete and trowel finished in a fashion similar to conventional concrete. Once cured the concrete is paste polished to the required gloss level and then processed as per the standard VitraFlor system. The primary benefit to Bomanite Belcolore is the superior abrasion resistance and range of color options along with the lack of need for topically applied dyes or stains. Bomanite Color Hardener can provide very intense color options in a much wider palette than with integrally colored concrete while at the same time greatly improving the abrasion resistance of the concrete. Belcolore by Bomanite is intended primarily for new construction or major renovation projects and only with paste polish aggregate exposure.

- **Wide Selection of Abrasion Resistant Colors**
- **Basic Architectural Appearance**

Custom Polished Floors by Bomanite

Custom applications may include metal inlays or graphics, sandblasted or chemically etched elements, variations in gloss level or include alternate concrete finishes. Whatever the desire may be a Bomanite Licensed Polishing installer has the resources to achieve what others may consider unachievable. Most Bomanite licensees either have concrete installation divisions that can perform the placing and finishing of the concrete slab being polished or can utilize their experience with concrete construction to work with and manage the installation performed by other qualified firms. This opens up a wide range of possibilities compared to most competitive polishing systems that rely on the concrete construction to be undertaken by others. Single sourced polished concrete installations generally result in better overall quality with far more design possibilities.

- **Widest Range of Design Variations**
- **Highly Architectural Appearance**

Why Choose Polished Concrete?

The process of polished concrete produces many desirable effects. The chemical hardening products were initially developed in the industrial flooring segment to reduce surface dusting from high volume traffic while reducing general maintenance costs. Once these products were coupled with the same processes used to polish stone, the properties of the resulting floor were significantly improved. Bomanite has taken and refined these products and processes over ***millions of square feet*** of installations to develop polished concrete flooring with optimized properties and predicable performance.

Durability

Concrete is the most common building material in the world predominately for three reasons; reduced cost compared to other building materials in comparison by volume, the local or regional availability of the raw materials to make concrete and the ***exceptional lifespan*** of properly designed installations. The surface of polished concrete is greatly improved by the chemicals used to harden and densify the concrete in combination with the mechanical polishing process. The Bomanite Custom Polishing processes increase the ***abrasion resistance*** of concrete as per third party independent testing by as much as 500% which further contributes to the lifespan of the floor.

Maintenance

Unlike traditional floor finishes, such as carpet or vinyl tile, polished concrete ***does not require extensive maintenance*** procedures such as waxing, burnishing or wet vacuuming. Stain resistant polished concrete when utilized correctly requires only mild, neutral ph cleaners combined with auto scrubbing to keep it clean. Periodic burnishing with commonly available diamond impregnated pads will maintain the desired gloss. Re-application of Bomanite VitraFinish every 3 to 5 years if determined necessary is the only long term consideration resulting in the industry's ***lowest lifecycle costs***.

Initial Cost

Polished concrete is very reasonable to install. It is generally ***less expensive*** than terrazzo or other types of comparable high quality floors such as stone or engineered quartz. The initial cost of polished concrete has many variables including, but not limited to; local labor costs, the size and scope of the project, whether a decorative or utilitarian finish is required, the level of gloss desired, the hardness of the concrete and the quality of the finish of the concrete being polished.

Health

Polished concrete is a very dense finished surface with little porosity left once finished. This inhibits the collection of dirt and dust which can be trapped in carpet and become airborne along with allergens and other pollutants. ***Bomanite polished concrete "breathes"*** allowing moisture vapor normally trapped in non-permeable floor finishes or retained in carpet to pass through the system without the potential to encourage mold to develop. Sick Building Syndrome is commonly attributed to these issues as well as out-gassing from floor coverings containing Volatile Organic Compounds or VOC's. These compounds are not found in any Bomanite Polishing System at a rate higher than 34g/l VOC in some coloring products with the primary components containing ***zero g/l VOC***, compliant with SCAQMD Rule 1113 and CARB 2007 SCM 100 g/l sealer category.

Safety

Bomanite polished concrete flooring meets all ***national traction standards***. Third party independent testing has verified our polished concrete floor surfaces with the National Floor Safety Institute "high traction" floor rating as per ANSI B101.1-2009. With an average test result greater than .70 (wet) Static Coefficient of Friction, correctly installed Bomanite Polished concrete flooring is very ***slip resistant*** in both wet or dry conditions.

Bomanite is a member of the United States Green Build Council (USGBC) and promotes sustainable decorative concrete products and systems to minimize the industry's impact on the environment.

Applications for Polished Concrete

Because polishing is a multi-step process, customers can choose the level of sheen—from satin to high-gloss—that meets their maintenance and aesthetic requirements. This versatility makes polished concrete an ideal flooring material for a variety of applications including:

- Workplace
- Hospitality
- Aviation
- Educational
- Professional
- Retail
- Government
- Residential
- Food Service
- Healthcare
- Automotive
- Manufacturing

Light Reflectivity

Additional ***cost savings*** are realized when the reduced requirements for lighting are taken into consideration. Dependent upon the color of the concrete and the final degree of gloss, any natural light is reflected further and more completely throughout the building with less man-made light required; even at night.

Appearance

Polished concrete is available in a range of colors and patterns. Decorative saw cuts, topically applied stains or dyes, color in the concrete itself, decorative aggregates or increased aggregate exposure are all options when designing polished concrete flooring. Dependent upon desire and budget, very high end/refined looking installations associated most commonly with terrazzo or natural stone flooring are achievable provided the application is well thought out prior to construction of the concrete slab. The fluid nature of concrete allows for design possibilities not found with other floor covering options. Bomanite licensed installers are aware of and offer a ***wide variety of custom options*** that would be considered unfamiliar to most other competitive polishing systems.

Lifecycle Costs

The durability of concrete itself combined with the improved surface abrasion resistance and reduced porosity of polished concrete results in long lasting floors. No removal and replacement is necessary with minimal maintenance using negligible amounts of chemicals to maintain the floors ultimately results in ***very low life cycle costs***. Based on a 30 year comparison of products Bomanite determined that correctly installed Bomanite polished concrete flooring is the most cost effective option currently on the marketplace- including terrazzo.

Sustainability

Low life cycle costs, low to zero VOC products and processes, an ongoing healthy environment with minimal maintenance requirements are all benefits of Bomanite polished concrete. Furthermore, unlike most flooring products, there is almost no consumption of raw materials in the concrete polishing process. Unless the existing floor is deemed unacceptable for polishing and requires a topping system to be installed, the only product consumed is the water-based hardening and stain resistant treatments. The system does not introduce any products that need to be separated from the base concrete slab when the end of its lifecycle has been reached making ***recycling*** of the structure more feasible.

Elementary School Cafeteria, TX
BCP System: Patène Teres

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Your authorized Bomanite Custom Polishing Licensed Contractor is:

Autodesk AEC Headquarters, MA
BCP System: Patène Teres

Hafele Retail Store, CA
BCP System: Patène Teres

Realize The Possibilities.

Markley Honda, CO
BCP System: Modena

Front Cover:
UCHSC Fitzsimmons Campus, CO
BCP System: Patène Teres

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