

Custom Polishing Systems GREEN BENEFITS

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.

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.

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

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.

