



A Solid Choice for a Clean Surface: The Case for Solid Surface

By The International Surface Fabricators Association

Photo Credit: Rick Wing

Solid surface has been around for more than 50 years now and is increasingly becoming the choice for healthcare, restaurant and hospitality applications because of its hygienic properties. Cleanliness and good hygiene are on pretty much everyone's minds these days, but before getting into why solid surface is an intelligent choice for sanitary applications, just what is it?

Even with more than 50 years of development and refinement under its belt, many typical home or business owners, or even architects and designers, really have little idea of what solid surface is.

What Is Solid Surface?

Solid surface, first invented in 1964 by Dupont and released in 1967 under the brand name Corian®, solid surface is a manmade material generally composed of alumina trihydrate (ATH), which is a derivative of natural bauxite, and is mixed with acrylic or polyester resin binders (or some combination of the two) and pigments. It is then heated to typically between 140 and 160°F and poured, most typically, into continuous sheets that are cut to a standard size. The sheets, which have the same color throughout (hence solid), are most commonly ½ in., but can be other thicknesses depending on the application and manufacturer (of which there are now many around the world).



Photo Credit: Corian® Design

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Once the sheets are sized, most commonly 30 by 144 in. (although there are several manufacturers that offer alternative and custom sizes), they are sanded and then sent out through various distribution methods. Fabricators then purchase the sheets and use tools similar to woodworking equipment, to cut, route, sand and form them into countertops, wall cladding, furniture, signs and a variety of other products for use in residential, commercial and OEM applications.

In addition to being workable similar to wood, solid surface can be heated and thermoformed into curved and molded shapes. It can also be printed on using dye-sublimation techniques that deposit the ink just below the surface so the image becomes permanent. If it can be imagined, it can likely be created from solid surface.

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Photo Credit: Aristech Surfaces / Avonite Surfaces



Photo Credit: Hyundai Hanex Solid Surface



The International Surface Fabricators Association (ISFA) represents professionals in the premium surfaces industry. ISFA exists to help members increase profitability, quality, safety and professionalism by facilitating education, standards, and camaraderie within the premium surfaces industry. For more information contact info@isfanow.org or visit www.isfanow.org.



Photo Credit: Aristech Surfaces / Avonite Surfaces

Qualities of Solid Surface

One key quality of solid surface is that it is nonporous. This quality alone carries a lot of weight. It means that it does not need to be sealed and repels liquids and most substances, such as wine, mustard, grease, “permanent” markers, hair dye, shoe polish, blood and other damaging materials that might potentially stain other surfaces. As such it is very low maintenance, easy to clean and does not harbor bacteria, mold or other fungus.

The fact that it is nonporous also makes it resistant to a variety of chemicals. Solid surface is not impacted by chemicals like ammonia, mild acids and trisodium phosphates, which are found in numerous household cleaners. It can also be safely cleaned with a bleach solution, per guidelines set forth by the Centers for Disease Control (CDC) to kill viruses. While some highly concentrated or acidic chemicals can produce a hazing effect, this can be removed relatively easily with the use of a wet Scotchbrite® pad.

This leads to another common quality of solid surface — it is renewable and repairable. While durable and scratch-resistant, it can be scratched or broken with heavy or improper use. However, because of the homogenous color, in almost all cases scratches can be polished out by trained fabricators and even if broken, it can be repaired so that it looks and performs just like new. Most manufacturers even offer a minimum 10-year installed warranty.



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Another quality of solid surface is that it comes in hundreds if not thousands of color and pattern options. It can be made to look like granite, quartz, solid colors, wood grains, veined stones, translucent colors and many others. Many manufacturers also will create custom colors for particular applications or to match logos, etc.

Solid surface can be joined nearly invisibly by a trained craftsman. That allows long stretches of material to appear as one piece and also unlocks the potential for integral sinks as well as coves. Coved solid surface means the material, even when in a butt seam, can be made so that there is a continuous flow with no cracks, crevices or seam visibility. The material can even be designed to perfectly follow the contours of a wall “seamlessly” and without gaps.

Typically manufactured in sheet form, solid surface can also be cast into a variety of shapes, including sinks, shower pans and even bathtubs. Sheet goods can also be thermoformed, which is when it is heated to a certain temperature and bent into 3-D shapes. When the material cools, the shape is retained permanently, which greatly adds to the flexibility and versatility of the product, both in terms of application and design.

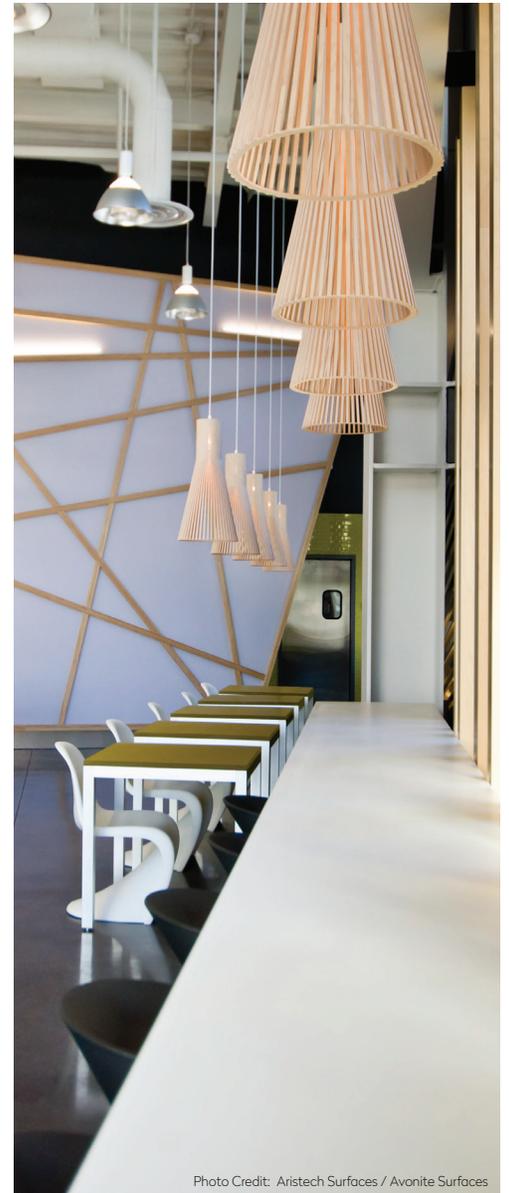


Photo Credit: Aristech Surfaces / Avonite Surfaces





Photo Credit: KRION Solid Surface

Uses for Solid Surface

While countertops are the most common use for solid surface, because of its aforementioned properties, it can be used in many ways. When it comes to horizontal applications, countertops are just the tip of the iceberg. Tables, benches, furniture, commercial food prep areas, desktops, window sills, bar tops and even flooring are all potential uses for this material.

It is also suitable for numerous vertical applications. Among these are bathroom partitions, shower/wet walls, interior wall cladding, operating rooms, wainscoting, signs and even exterior cladding.

Another area for use of this material is OEM, custom or unique creations. Custom sinks, bathtubs, shower pans, switch plates, shelving, unique furniture, lighting applications, cabinetry, door pulls and both functional based and aesthetically pleasing art are all possible, as well as many things beyond. The possibilities are pretty much limited only to the imagination and skill set of the craftsman working with the material.

Solid Surface for Safety

With at least a basic understanding of the material, its properties, fabrication techniques and popular uses, it begins to be easily seen why solid surface is highly suitable and growing in usage for healthcare, commercial kitchens and other places that can be potentially risky in terms of exposure to harmful, illness causing agents and must be able to stand up against heavy use.

Hygienic

Solid surface does not support the growth of bacteria, mold or other fungus, which makes it highly suitable for healthcare settings like hospitals, doctors' offices, hospices and retirement homes. This also makes it desirable for commercial kitchens and bathrooms, which commonly come in contact with germs, and it goes without saying that these qualities are also great for household kitchens and baths.

Seamless

A major appeal of solid surface is its seamless nature. This makes it perfect for applications like surgical room walls, showers / wet walls, covered backsplashes and integrated sinks. The smooth surface eliminates cracks and crevices, that typically trap dirt and contaminants.



Photo Credit: Hyundai Hanex Solid Surface

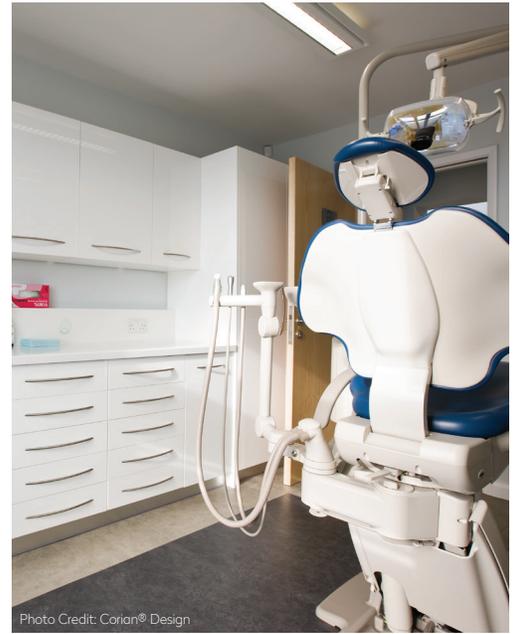


Photo Credit: Corian® Design



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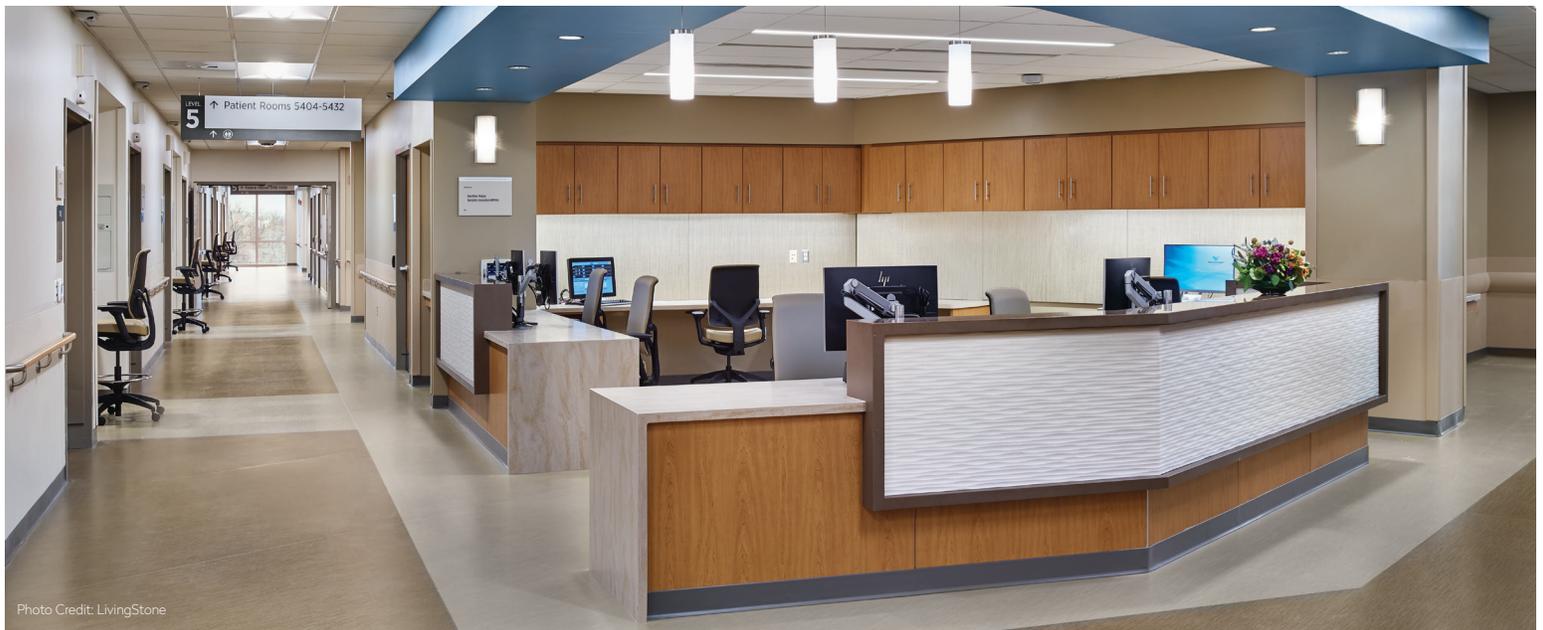


Photo Credit: LivingStone

Greenguard™ Certification

Another healthy certification that many solid surface brands have earned, this means that it is low chemical emitting. GREENGUARD Certification means that a product has been tested for hundreds of VOCs which can be considered harmful by UL and does not contribute to poor indoor air quality. This is just another of the factors that make solid surface a safe choice.

NSF/ANSI 51 Certified

Many, if not most, solid surface brands carry a certification that means it has been tested and is safe for food contact. This is another reason why it is considered a suitable product for use in commercial or residential kitchens.



Photo Credit: KRION Solid Surface

Tying it all together

In summary, it's easy to see why solid surface continues to grow in popularity in the healthcare industry and why it's also a great fit for restaurants and commercial kitchens, as well as any other application subject to high traffic or potentially harmful contaminants.

With growing fears regarding cleanliness, it can help to provide peace of mind to clients and with vast color options and near-endless design possibilities, they don't have to sacrifice looks for good hygiene.

Looking forward, with an aging Baby Boomer population, healthcare demands are expected to continue to grow, further driving growth of solid surface. As such, manufacturers, distributors, fabricators, architects, designers and all of the various entities involved in the creation and use of the product should make sure the potential of the material is understood. As always, this starts with educating the customer.

By doing so, the case for solid surface as a clean, durable, renewable and aesthetically pleasing option pretty much sells itself.



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