

CORIAN® SOLID SURFACE PRODUCT OVERVIEW

PRODUCT NAME

Corian® Solid Surface

MANUFACTURER

Corian® Design

Experimental Station - Building 356

Wilmington, DE 19803

Toll free 1-800-4-CORIAN (1-800-426-7426)

www.corian.com

PRODUCT DESCRIPTION

Basic use

Corian® Solid Surface is an advanced composite product used as an architectural and design material in a variety of residential and commercial applications. Corian® Solid Surface offers design versatility, functionality and durability. Supplied in sheets and shapes, it can be fabricated with conventional woodworking tools into virtually any design. It is the original Solid Surface material made only by DuPont. It is widely accepted as a material for countertops, vanity tops, tub/shower walls, kitchen sinks, vanity basins and laboratory bench tops in numerous markets including lodging, healthcare, banks, boutiques, restaurants.

Composition

Corian® Solid Surface sheet is a solid, nonporous, homogeneous surfacing material, composed of $\approx 1/3$ acrylic resin (also known as polymethyl methacrylate or PMMA), and $\approx 2/3$ natural minerals. These minerals are composed of aluminum trihydrate (ATH) derived from bauxite, an ore from which aluminum is extracted. Corian® Solid Surface sinks and lavatories utilize a acrylic-modified polyester resin. For more information on the composition of the material, please consult the Corian® Solid Surface Safety Data Sheets (SDS) available via the dupont.com website or via your local supplier.

STANDARD PRODUCTS

Corian® Sheets

Available in various standard thicknesses, easily cut to size by professional fabricators.

All colors in the standard color palette are available in 12 mm ($1/2$ ") sheets that are 30" x 144" (760 mm x 3658 mm). Select colors may be available in 19 mm ($3/4$ ") sheet with the same length and width or 6 mm ($1/4$ ") sheets that are 30" x 98" (2490 mm x 760 mm). 36.6" , 48" , 54" and 60" (930 , 1219, 1372, and 1524 mm) wide sheets are available in select 6 and 12 mm colors. Please consult the Corian® Design website, corian.com or *Corian® Solid Surface Sheet Products* (K-24016) and *Corian® Solid Surface Sheet Color Options* (K-26836) for more details.

Corian® Sinks and Lavatories

A wide range of Corian® sinks and lavatories is available in solid colors for custom integration with Corian® sheets to create a continuous surface. This includes vanity basins in solid colors for bathrooms, and single and double sinks for kitchens, bars and small wash-up areas, hospitals and laboratories. Seamed undermounting eliminates rims that trap dirt and water, minimizing cleaning and maintenance and providing improved hygiene.

The Colors of Corian® Solid Surface

A broad palette of colors allows for an almost unlimited working palette. You can choose a single color; a neutral basis for design; or experiment with eye-catching harmonies. Corian® Solid Surface can also be used as inlays, accents, or as a versatile complement to other materials like metal, wood, stone, etc.

For complete information on colors, refer to corian.com. Hues, patterns and textures are related by style and character. Dark, heavily pigmented Corian® colors will show scratches, dust and ordinary wear and tear more readily than lighter, textured colors. As a result, these colors are recommended for applications where surface contact is light or for use as inlays and accent colors. However, the DeepColor™ series incorporates an innovative, proprietary technology that delivers greater depth of color and increased durability compared to other dark Corian® colors.

Custom Sheets

DuPont can manufacture Corian® sheets in custom colors, patterns and dimensions, within manufacturing capability limits and based on a minimum order quantity.

See *Corian® Shapes* (K-29965) for an overview of dimensions available.

Limitations

Although Corian® Solid Surface can withstand high temperatures, it should be protected against direct heat with hot pads or heat shields.

Use of 6 mm ($1/4$ ") sheets should be restricted to vertical applications or certain furniture applications only. The choice between 12 mm and 19 mm ($1/2$ " and $3/4$ ") is generally based on performance and cost considerations.

Due to the complex blending of natural minerals and man-made acrylics, slight color variations may be found within a sheet or from sheet to sheet of same color. Therefore, checking for color matching is an essential element of sheet inspection before starting fabrication.

Corian® Solid Surface is nonporous so spills and stains remain on the surface. However, some chemicals can stain, discolor or damage the surface of Corian® Solid Surface. These chemicals include strong acids (like concentrated sulfuric acid), ketones (like acetone), chlorinated solvents (like chloroform) or strong solvent combinations (like paint remover). The extent of the damage will depend on the length of contact. Except for strong solvents such as paint remover, short periods of contact will not usually cause severe damage to Corian® Solid Surface. Acid drain cleaners should not be used as they can damage both Corian® Solid Surface and any plastic plumbing beneath. Corian® Solid Surface is not recommended for use in photographic processing laboratories. More information can be found in *Corian® Chemical Resistance* (K-27406). In some hospitals and laboratories where strong disinfectants come in contact with Corian® applications, the recommendation is to use solid colors and avoid extended contact.

PERFORMANCE PROPERTIES AND CHARACTERISTICS

Since its introduction in 1967, Corian® Solid Surface has proven itself to be remarkably durable, versatile and easy to live with in both the home and commercial environments.

Typical performance properties of Corian® products are shown in *Corian® Performance Properties* (K-26829). The performance of Corian® sheets may vary according to the thickness of the material, its aesthetics and surface finish.

Colors and patterns run through the entire thickness of the material and cannot wear away or delaminate. Joints can be glued inconspicuously, making virtually unlimited surfaces possible.

Corian® Solid Surfaces are restorable, meaning they can be fully restored with ordinary mild abrasive cleansers and a scouring pad. Cigarette burns, for example, can be easily removed in this way. Damage caused by abuse can usually be repaired on site without having to completely replace the material.

Corian® Solid Surface is nonporous with a smooth, seamless appearance. With proper cleaning, the material does not promote the growth of mold, mildew and bacteria.

Corian® Solid Surface is nontoxic and nonallergenic to humans. Corian® Solid Surface meets or exceeds emissions guidelines for volatile organic compounds (VOCs), hazardous air pollutants (HAPs) and has achieved GREENGUARD GOLD Certification.

When burned, it releases mainly carbon oxides and the smoke generated is optically light and does not contain toxic halogenated gases. Because of these properties, Corian® Solid Surface is used in public spaces and delicate applications such as airport check-in counters, wall and work surfaces in hospitals and hotels.

Corian® Solid Surface sheets can be thermoformed in wooden or metal molds at controlled temperatures in order to create various 2D and 3D design objects. Embossing effects can also be created.

The translucency of Corian® sheet is especially striking in the lighter colors as well as in thinner sheets. As a result, many designers are using it to create lamps or lighting effects in various applications.

Inlaying Corian® Solid Surface with different materials or with different colors of Corian® is possible and can enhance the inherent beauty of the material. Inlays and logos can also be created on Corian® Solid Surface using dye sublimation or direct printing techniques.

FABRICATION AND INSTALLATION

Corian® Design trains and certifies fabricators and installers who are provided detailed information regarding proper procedures; the following is a general overview, not a comprehensive guide to proper use.

Seams

To minimize material usage and facilitate installation, a corner block of Corian® Solid Surface should be made square (butt) rather than mitered. The edges to be joined should be straight, smooth and clean. Some seams need to be reinforced (see fabrication manual for details). Joints should only be made with Corian® Joint Adhesive. Cutouts should be made with a router equipped with a sharp carbide bit, with a minimum diameter of $\frac{3}{8}$ " (10 mm). All corners of a cutout must be rounded to 5 mm radius and the edges smoothed, both on top and bottom, all around a cutout. "L" and "U" shaped corners need smooth, $\frac{3}{16}$ " (5 mm) radius inside corners. For hob cutouts, corners should be reinforced with a Corian® corner block. See fabrication manual for more details.

Some Corian® Solid Surface colors that feature random veins and irregular patterns require special considerations regarding the seams. Please refer to the related technical bulletin for best practices in fabrication of these colors.

Sealants and Adhesives

Corian® Solid Surface is compatible with many commercially available caulks and sealants. 100% silicone products are recommended. Vertical panels of Corian® may be installed over suitable substrates, including water-resistant gypsum board, marine-grade plywood and ceramic tiles. In case a support is needed, apply perimeter frame or full support direct to Corian® using large beads of flexible adhesive leaving a space with a minimum thickness of $\frac{1}{16}$ " (1.5 mm).

For making seams in countertops, repairs and custom edges, color-coordinated Corian® Joint Adhesive should be used. When used in accordance with manufacturer's instructions, it provides a smooth and inconspicuous joint. Corian® Joint Adhesive is available from Corian® Design or its distributors.

Clearances

The minimum expansion clearance in inches for Corian® Solid Surface is 2.2×10^{-5} in./in.°F x (length of the piece of Corian® Solid Surface in inches) x (biggest temperature range expected in °F) In mm the minimum expansion clearance is 3.9×10^{-5} mm/mm °C x (length of the piece of Corian® Solid Surface in mm) x (biggest temperature range expected in °C). Joints to be caulked should be a minimum of $\frac{1}{16}$ " (1.5 mm) wide to allow satisfactory sealant penetration and expansion.

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Precautions

Product dimensions are nominal. If tolerances are critical, review your needs with a Corian® specialist.

AVAILABILITY AND COST

Availability

Corian® Design sheet, shape, and accessory products are readily available through a worldwide network of Distributors and certified Fabricators/Installers.

Cost

Cost varies with color, thickness, and width as well as custom fabrication and installation details.

WARRANTY

DuPont offers limited commercial and residential warranties.

MAINTENANCE

Preventing Damage to Corian® Solid Surface

Avoid prolonged exposure to strong chemicals such as acids, bases, and organic solvents. Spills should be cleaned up promptly. Refer to *Corian® Chemical Resistance* (K-27406) for additional details regarding chemical exposures, and *Corian® Solid Surface Care and Maintenance for Facility Managers* (K-29810) for clean up, and general maintenance. In case of exposure outside the specifications listed in the Class I Reagents section, the 10-year limited product warranty will be void and handled as a case of abuse. While unaffected by minor impacts, Corian® Solid Surface can be damaged by heavy impacts, especially from pointed objects. It can also be damaged by excessive heat. A local Corian® Design specialist can help you include appropriate heat management into your designs.

Repairing Corian® Solid Surface

Corian® Solid Surface provides superior value by being inconspicuously repairable in most cases. Minor cuts, scratches, and stains can be removed by owners using fine sandpaper and Scotch-Brite™ pads. Deeper cuts or impact damage such as cracks may require an authorized Corian® fabricator/installer to make inconspicuous repairs.

ADDITIONAL INFORMATION

For additional information or support please contact your local distributor, visit corian.com or call 1-800-4-CORIAN (800-426-7426).

REFERENCED DOCUMENTS

Corian® Performance Properties (K-26829)

Corian® Chemical Resistance (K-27406)

Corian® Commercial (Product Only) 10-Year Limited Warranty For North America (K-30071)

Corian® 10-Year Limited Residential Warranty For North America (K-30070)

Corian® Solid Surface Sheet Products (K-24016)

Corian® Solid Surface Sheet Color Options (K-26836)

Corian® Solid Surface Care and Maintenance for Facility Managers (K-29810)

PLEASE VISIT OUR WEB SITE: WWW.CORIAN.COM OR CONTACT YOUR CORIAN® REPRESENTATIVE
FOR MORE INFORMATION ABOUT CORIAN® SOLID SURFACE

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