

VEINED AESTHETICS

INTRODUCTION

This bulletin addresses the fabrication techniques for the unique aesthetics of veined DuPont™ Corian® solid surface colors. These guidelines will help produce installations aesthetically acceptable to the customer.

OVERVIEW

The colors of DuPont™ Corian® with veining have random and complex patterns that will allow you to offer completely unique aesthetics to your customers. These patterns can also result in underestimating and unacceptable results if not accounted for during fabrication. For best visual results, you will need to use some different layout and assembly techniques. This bulletin contains several design ideas to get you started. With experience, you will likely find additional techniques to maximize the beauty of your installations. It is the responsibility of the fabricator to be sure to blend the patterns into the assembly. Also, be sure to show samples to your customer to be sure that the blending will meet their expectations. The *DuPont™ Corian® Solid Surface Product Fabrication Bulletin – Directional Aesthetics* (K-26828) provides a list of the colors covered by this bulletin.

A. PRODUCT DESCRIPTION

These products have characteristics that require some specific fabrication methods:

- Random directional veining that ranges from subtle to bold
- The veining pattern changes through the thickness
- The edge of the sheet has a different appearance than the top
- The overall shade may change slightly through the thickness
- Some colors have abrasive content that shortens tool life
- Sheet yield may be lower due to need to maintain specific sheet segment orientations. Orientation needs to be considered when quoting jobs. DO NOT bid jobs based off sheet price and square footage alone.

The fabrication methods that provide the most pleasing results with veined aesthetics often require more sheet than fabrication of other colors. The time to discuss the various fabrication methods, their effects on cost and appearance, and set expectations is BEFORE submitting bids or fabrication so the customer understands the impact on price and appearance. Physical samples help in setting expectations.

B. KEY FABRICATION POINTS:

- Edges that “wrap” the pattern will have the most natural appearance. For tight or zero radius bends v-grooving is recommended. For large radii thermoforming is an option. Stacked edges will have a different, but generally pleasing appearance as the edge of the veining pattern is revealed. Drop edges are only suitable with the most subtle patterns.
- There will be a visual break in the pattern at seams. This break appears best when sections are at the same orientation or if at an angle, joined by a mitered seam.
- Cutting into the sheet will reveal a different pattern. This can cause problems at coves, engraved drain boards, etc.
- Some colors (Ecru and Natural Gray) have colorants that are more abrasive and tool life will be shorter than normal.
- Some colors appear to be “softer” when finishing so use care to get the proper finish.
- Veined colors thermoform best at cooler temperatures than normal and may require larger minimum radii.

C. EDGE DETAILS

Corian® solid surface with veined aesthetics have random directional veining that ranges from subtle to bold. The edge of the sheet shows the pattern in a more layered appearance. Combining the surface and edge patterns in a single flat surface is generally not aesthetically acceptable except for the most subtle patterns. This impacts design options as shown in this document. It is important to understand how each design works with the color of interest. For large radii thermoformed edges are also an option.

V-Groove Edge

This edge design allows the pattern to “wrap” from the horizontal to the vertical surface. It is important that the pattern orientation is retained. A minimal radius should be used to avoid revealing interior pattern.

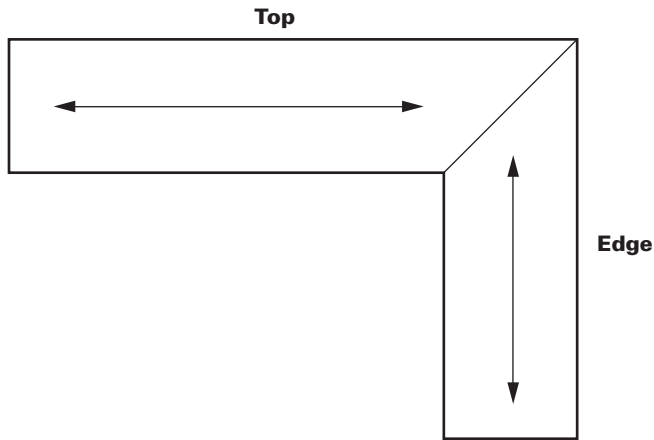


Figure C-1

Stack Edge

This edge design reveals the edge of the veining pattern. While the edge pattern is different, the edge has a natural looking transition. This is often the most flexible edge for design. The stacked pieces should have the same orientation as the top deck. A large edge detail, such as a 1/2" (12 mm) or 3/4" (19 mm) roundover makes a smoother transition from the surface to the face of the edge.

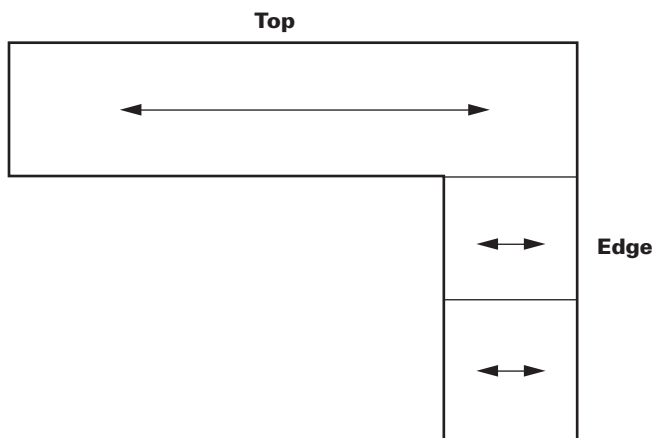


Figure C-2

Drop Edge

This edge design reveals the edge of the top sheet combined with the top surface of the DuPont™ Corian® sheet forming the drop edge. For all but the most subtle patterns these will look distinctly different and generally aren't found to be acceptable.

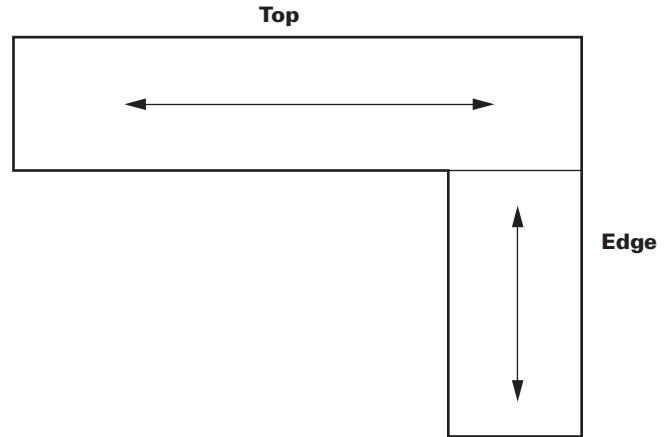


Figure C-3

Veined aesthetics have random veining that has a directional nature in the length of the sheet. Some colors, especially lighter colors with subtle patterns may be acceptable with a typical 90° butt seam. Most cases, however, will require a miter seam to give acceptable aesthetics. As always, it is best to have samples showing alternative methods of seaming and edge assembly. The aesthetic pattern is random and does not repeat. Therefore a visual break in the pattern will be visible at seams.

The following graphics illustrate various seaming methods. Machine Direction (MD) refers to the orientation along the length of the sheet. Transverse Direction (TD) refers to the orientation across the width of the sheet. The pattern flows in the MD direction.

End-to-End (MD-MD) seam: Placing sheets end-to-end with the same orientation is recommended and will provide the best appearance. There will be a pattern break at the seam that will be more noticeable with stronger patterns.

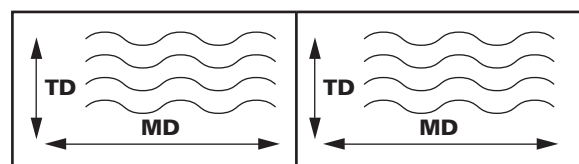


Figure D-1

Side-to-Side (MD-MD) seam: This seam may be used for islands, etc. where the desired width is greater than a single DuPont™ Corian® sheet. Placing sheets side-to-side with the same orientation is recommended and will provide the best appearance. There will be a pattern break at the seam that will be more noticeable with stronger patterns.

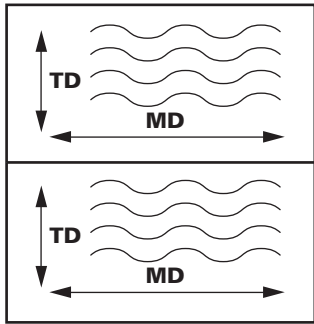


Figure D-2

MD-MD Butt Seam: For short “L” corners, making the short leg with a segment aligned with the same sheet orientation will provide the most uniform aesthetic. There will be a pattern break at the seam that will be more noticeable with stronger patterns.

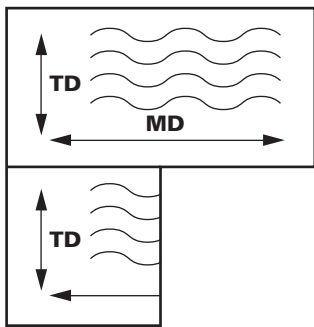


Figure D-3

Mitered “L” corner: A mitered corner will allow the pattern to “wrap” around the bend.

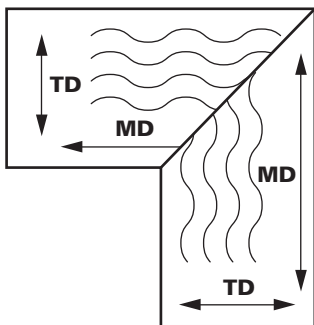


Figure D-4

Typical 90° butt seam: This may be acceptable for light colors with subtle patterns, but in general will not provide a pleasing aesthetic as the change in pattern direction will be abrupt and highly noticeable.

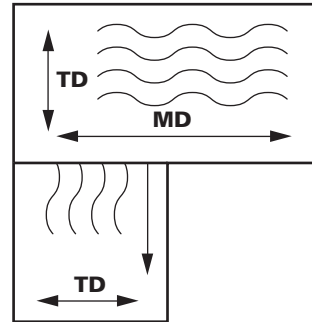


Figure D-5

When using a miter seam, all requirements for a deck seam, as set forth in *DuPont™ Corian® Solid Surface Fabrication/Installation Fundamentals – Seaming* (K-25292) must be followed. The drop edge method discussed in *DuPont™ Corian® Solid Surface Fabrication/Installation Fundamentals – Edge Details and Buildups* (K-25293) may be suitable for subtle patterns. The insert block stack method may be possibly be used for bolder patterns, but would require careful selection of the material for the insert block. For a more general approach to fabricating bolder patterns a different method is required to create an inside radius.

The drawing below shows a method for cutting a miter with integral radius and “L” support strips. The radius is cut from the front of the sheet. This removal of material from the front of the sheet will preclude creating a cove from the back, but coves are not well suited for cases where the bold pattern requires this method. To reinforce the seam the stacked edge should consist of two “L” strips, preferably cut at a 45° orientation.

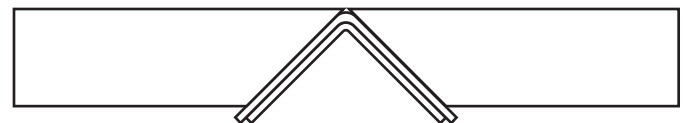


Figure D-6

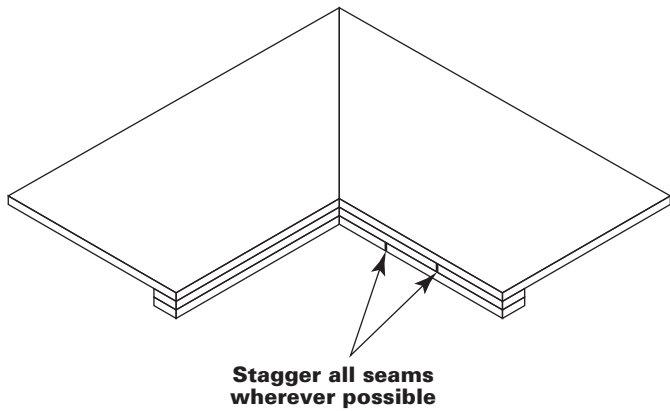


Figure D-7

A straight 45° miter is shown. Other alternatives include serpentine or arc seams which may also blend the pattern, but require additional effort to reinforce the seam.

The following photographs show a small mockup with many of the fabrication attributes discussed in this section. Arrows are added to indicate sheet direction.



Figure D-8

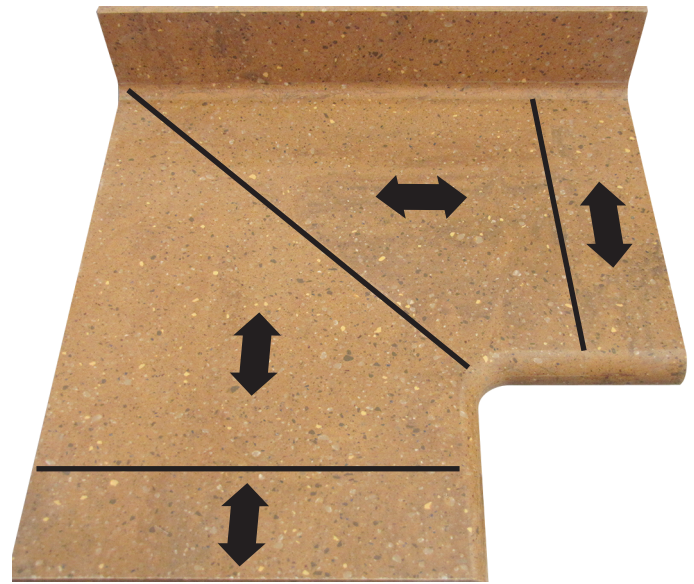


Figure D-9



Figure D-10

E. COVES

The vein pattern, and sometimes overall shade, can vary through the thickness of the DuPont™ Corian® sheet. Cutting into the depth of the sheet, as is done with coves, reveals a different pattern and sometimes a slight shade shift. Having two pattern transitions in a short distance draws the eye to the cove, which can appear as a stripe. Covs are generally only acceptable with subtle veining patterns. As the pattern intensity increases the risk of visible pattern transitions increases. The acceptability of the cove may vary from sheet to sheet depending on the random nature of the veining. It is important to set customer expectations in advance, preferably with physical samples,

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when offering coves. Of the various cove techniques, a v-groove cove often has the most acceptable aesthetics. The deck, cove, and backsplash should all have the same sheet orientation. A typical cove for a DuPont™ Corian® product with a strong pattern is shown below.



Figure E-1

F. THERMOFORMING

Veined aesthetics should be heated to the lower end of the recommended Corian® solid surface range (150-160°C / 300-320°F). Lower temperatures may be used for large radii. Be sure to calibrate your system at the lower end of the temperature range before beginning. See *DuPont™ Corian® Solid Surface Fabrication/Installation Fundamentals – Thermoforming* (K-25297) for calibration techniques and further thermoforming guidance.

The three-inch minimum radius for 1/2" (12 mm) sheet given in the *DuPont™ Corian® Fabrication/Installation Fundamentals – Thermoforming* (K-25297) is the minimum radius for the best performing colors, not guidance for all colors. Veined aesthetics with larger particulates generally require larger radii.

G. FINISHING

All typical finishing methods are suitable to use on veined aesthetics. Darker colors may have a slightly better appearance with a semi-gloss finish. However, the consumer should be made aware of the proper care and maintenance instructions for the provided gloss level. During finishing, varying pigment composition of the veins make certain regions of the sheet harder and softer, with material removal faster in the softer regions. The behavior can be similar to finishing a wood grain. This means that greater care must be taken to get an acceptable finish. Hard finishing disks are recommended as they reduce differential material removal from the hard and soft regions. More frequent checks to be sure that scratches are being removed may be in order. The use of low angle lighting will help highlight scratches for removal. It also may be necessary to finish up with a finer than normal grit of abrasive. As always, cleaning the top between grit changes is needed.

H. SUMMARY

These guidelines address fabrication of the unique aesthetics of veined aesthetics colors. For general fabrication techniques please review the appropriate DuPont™ Corian® Solid Surface Fabrication/Installation Fundamentals bulletin.

I. REFERENCED DOCUMENT

DuPont™ Corian® Solid Surface Fabrication/Installation Fundamentals – Seaming (K-25292)

DuPont™ Corian® Solid Surface Fabrication/Installation Fundamentals – Edge Details and Buildups (K-25293)

DuPont™ Corian® Solid Surface Fabrication/Installation Fundamentals – Thermoforming (K-25297)

DuPont™ Corian® Solid Surface Product Fabrication Bulletin – Directional Aesthetics (K-26833)

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