

level

Window Film Toolkit



Note: The photos shown are digital renderings and may not accurately depict the opacity of the actual product. Please order a sample to evaluate the actual product before ordering window film.

Printed window films can be an effective way to infuse color and design into otherwise plain glass windows, partitions, and doors. In addition to their aesthetic appeal, printed films can also be used to add privacy, control light, improve way-finding, and more.

There are a few things to consider when specifying window film, and understanding some of these basics will make the process run smoothly and ensure an outstanding result.

WINDOW FILM PRODUCTS

WINDOW FILM MURALS

- **Any design** can be custom **specified on window film**.
- Like our wallcovering murals, window film murals tend to be full height, “feature wall” applications, **sized to your specifications**.
- **Custom** colors are available as well as privacy options, stained glass effects, frosted effects, and more.
- We also offer a **curated selection** of mural designs printed as window film by default.
- Printed on our standard **optically clear polyester window film**.
- **Note:** Specifying window film as a custom base material can alter the appearance of a design’s colors and overall characteristics. Metallic effects are not available on window film products.

STANDARD REPEAT WINDOW FILM

- A **curated selection of repeat-pattern** designs featuring **white or frosted ink** effects printed on window film.
- **Sold by the roll** and are installed horizontally across the glass.
- They’re a perfect **budget option!**
- Available in a standard size - **no need to measure:** 59” Tall x 180” Roll/Repeat
- Printed on our standard **optically clear polyester window film**.
- Custom options are available (ask your sales rep for details).

PRIVACY & SAFETY APPLICATIONS

- For privacy & safety applications we offer the following solutions. Any window film print can be customized with these options. Ask your Level sales rep for details.

White Ink in a Range of Opacities

Our Frosted Glass Effect

70/30 Perforated Film

OPACITY CHART

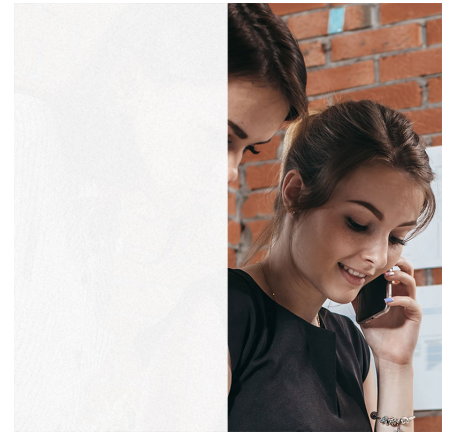
- The below images show our 6 most **common opacities of white ink**.
- Useful when customizing window film for privacy applications.
 - Opacity A (5% White Ink)
 - Opacity B (7% White Ink)
 - Opacity C (10% White Ink)
 - Opacity D (20% White Ink)
 - Opacity E (30% White Ink)
 - Opacity F (50% White Ink)
- **Note:** White Ink opacities are not limited to these 6 options, but we recommend using them because the narrower the gap gets between opacities, the less noticeable the difference is between them when printed. Additionally, opacities above 50% tend to become indistinguishable from one another.



Opacity A (5% White Ink)



Opacity C (10% White Ink)



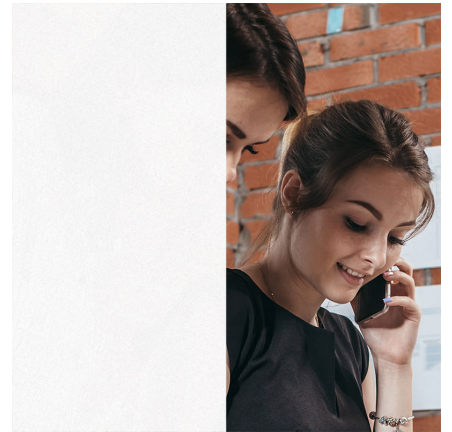
Opacity E (30% White Ink)



Opacity B (7% White Ink)



Opacity D (20% White Ink)



Opacity F (50% White Ink)

SPECIFYING CUSTOM OPTIONS

If you choose to customize any aspect of a window film design some additional information may be necessary depending on the result you wish to achieve. Understanding the following options and their nuances will help you provide that information efficiently and effectively:

INK COMBINATIONS

There are various ways that white, color, and pop gloss inks can be combined, and each combination will yield a different effect. These combinations are:

- **Color Ink Only** - Color inks are inherently frosted in appearance, allowing diffused light to pass through. Color inks can also be used to create a neutral, frosted glass effect.
- **White Ink Only** - White inks are more opaque than color inks and also appear frosted in nature.
- **Color + White Inks** - White inks can be used in combination with color inks for both aesthetics and to add opacity to the colors. This can be a single layer of color backed by a single layer of white (in which case the color is only viewable on one side of the glass), or a layer of white sandwiched between two layers of color (in which case the colors are viewable on both sides of the glass).
- **Pop Gloss Inks** - Adding pop gloss to color inks results in a very glossy, transparent, stained-glass effect.

OPACITY

- The **Opacity** of a print on window film is the **degree to which the ink completely blocks out light**. A high opacity print allows very little light to pass through, while a low opacity one is very transparent, and allows considerable light to pass through.
- **White ink is inherently very opaque**. Printing heavy coverage of White ink yields a high opacity print, while printing a very light screen of white yields a low opacity print. **White ink is ideal for controlling opacity**. Since **White ink prints more opaque than expected**, for best results when customizing **we recommend erring on the lighter side**.
- **Color inks are inherently translucent** (though darker colors are by nature **slightly** more opaque and lighter colors are **slightly** less so). This translucency cannot be controlled. For example, a true, bright red has a bit of opacity to it (because it requires a fair amount of ink to print). By printing less ink, the result is not a lower opacity bright red, but rather a pink color that is the same opacity as the red. The only way to control the opacity of this red is to first print a base of White ink at your desired opacity.
- Keep this in mind when requesting colors on window film at certain opacities. **We can only control opacities of color on window film by adding White ink**.

GRADIENTS

- A **Gradient** is a print that starts as one color or opacity, and fades to a different color or opacity.
 - Gradients of **white ink** will always **fade from one opacity to another opacity**.
 - Gradients of **color inks** will always **allow light to pass through**, as the opacity of color inks cannot be controlled.
 - Gradients that combine both white and color inks are not recommended as it is **nearly impossible to align them in perfect registration**.
 - In a gradient, the transition from white ink to unprinted clear film can be noticeable, though subtle. Unless necessary, we recommend a gradient that starts at no heavier than about 75% white ink, and transitions to no less than 5% white ink.

SPECIFYING STANDARD REPEAT WINDOW FILM

When specifying **standard repeat window film**, you **simply need to calculate your overall length** and order the appropriate amount of rolls to fill that need.

Keep in mind that the 40" tall designs come in 120" long rolls, and the 59" tall designs come in 180" long rolls.

We **recommend ordering an extra roll** to allow for any on-site contingencies during installation.

SPECIFYING WINDOW FILM MURALS

We offer a **curated selection** of designs that are **printed as window film by default**. These are a good "out-of-the-box" solution as they require little input to specify, and the available samples clearly demonstrate the end product.

Should you specify one of these you'll **only need to provide the required information listed below**. For any custom specifications, additional information may be required as defined in the section **Specifying Custom Options** in this guide.

The following information will always be required any time a window film mural is specified:

DIMENSIONS

- Two sets of dimensions are required.

First, an overall height and width of each main glass unit (window, door, etc.) must be provided.

In addition to this however, dimensions for each individual pane of glass, as well as those of any mullions or dividers must also be provided. These are critical to ensure that the finished film will align continuously across the full section of glass.

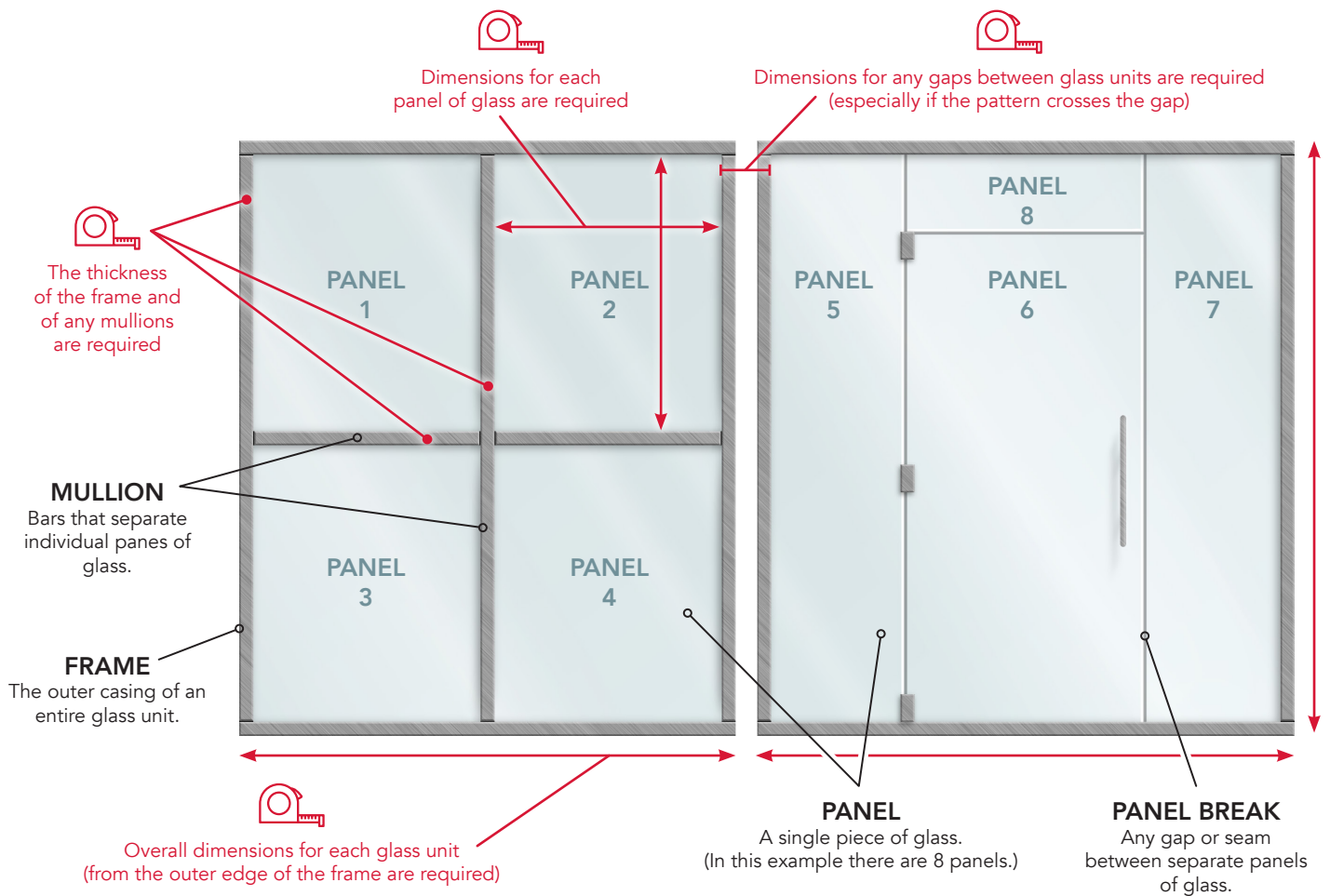
- Note:** Each pane of glass will be printed as a separate window film. These include 2" of bleed and must be trimmed to fit by the installer. The material is available up to 61" in width, so for very wide glass panels, a seam might be necessary. See the section **Measuring for Window Film** in this guide for more details.

FIRST SURFACE vs. SECOND SURFACE

- You will need to indicate on which side of the glass your window film will be installed.
- While window film can be applied to either side of a piece of glass, installation is typically done to the side that receives the least amount of traffic and/or exposure to wear.
- Establishing this surface early on is critical as it dictates how the print file must be created. Please refer to the section **First Surface vs. Second Surface** in this guide for more details.

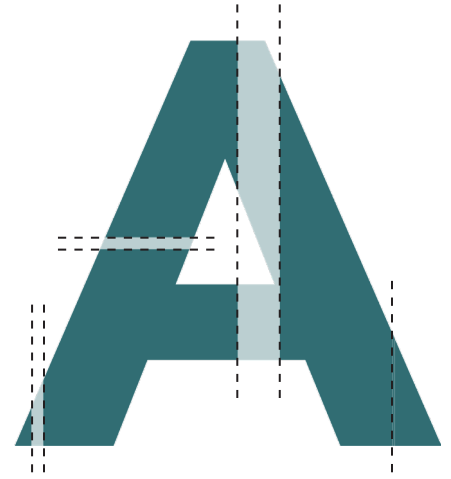
MEASURING FOR WINDOW FILM

Although each installation is unique, there are some basic measurements that are almost always required for successful window film applications. Providing accurate dimensions for these will facilitate the ordering process and greatly improve the end result.



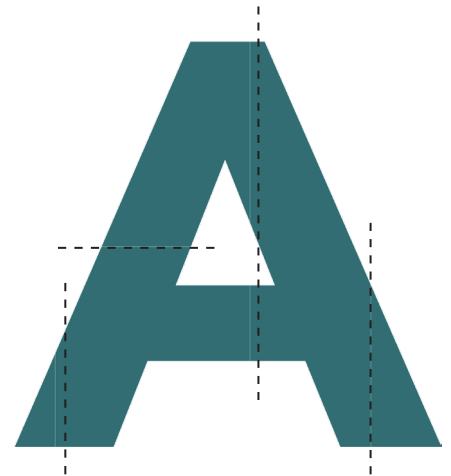
MEASURING FOR WINDOW FILM *(continued)*

Here's why all of these elements and dimensions matter:



CORRECT

When all the required dimensions are provided, the artwork can be fitted during production so that once installed, the image aligns properly across the various panels of glass.



INCORRECT

When required dimensions are incorrect or missing, the artwork may not be properly sized and paneled during production, resulting in an installation that is out of alignment.

FIRST SURFACE vs. SECOND SURFACE

Window film may be applied to either side of a pane of glass, and this is typically determined by which side will receive less exposure to physical contact (for longevity of the product).

Depending on which side, or *surface*, of the glass is chosen, the artwork may need to be printed as a mirror-image so that the image will "read" as intended once installed. It is necessary to determine this surface prior to the production of a strike-off, to ensure a proper installation.

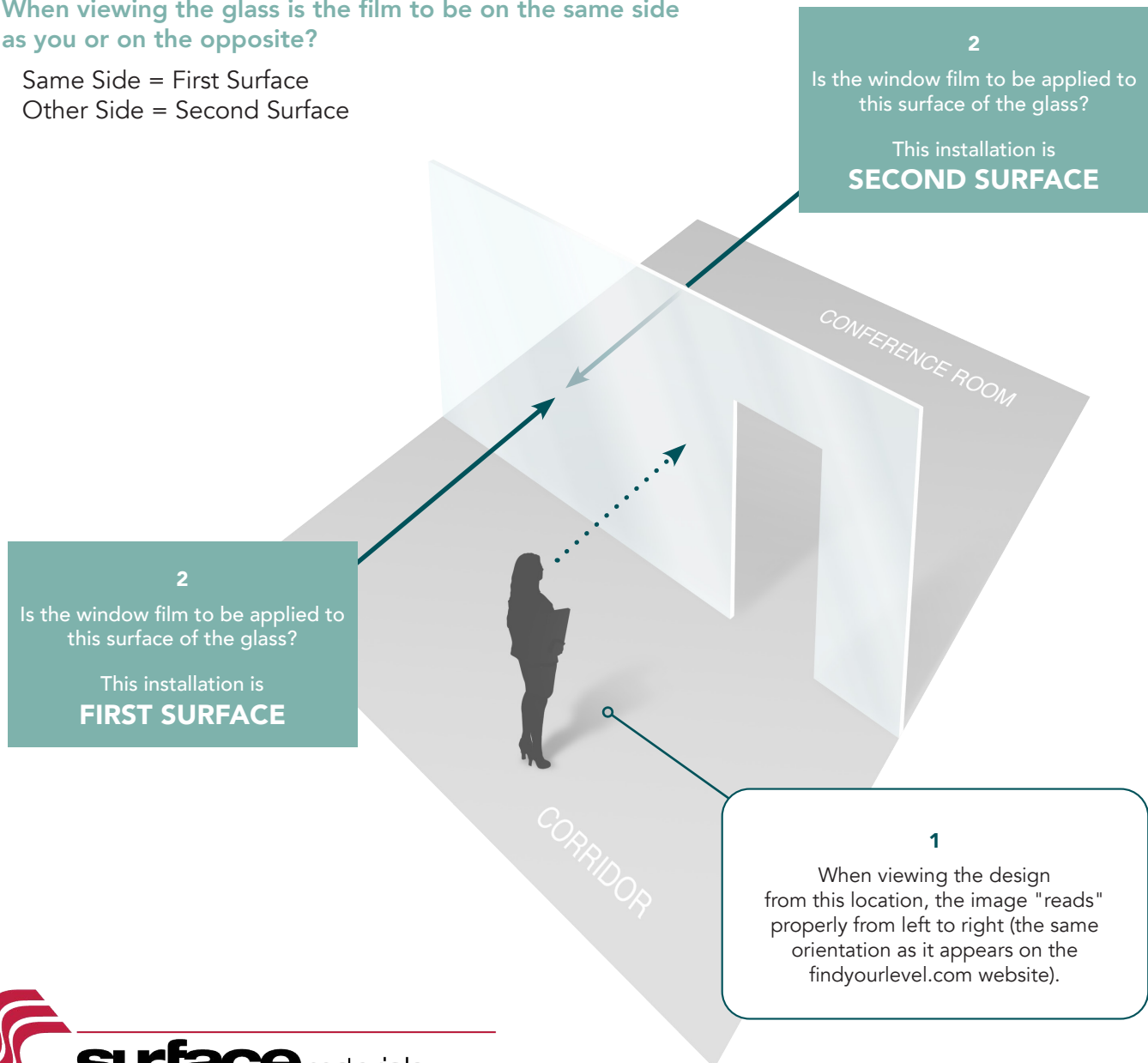
There are 2 things we need to know in order to establish the correct surface:

1 Where is the viewer in relation to the glass?

It's critical to establish the location from which you're viewing the finished design in it's normal left-to-right orientation. Since First Surface is always on the same side of the glass as the viewer, we need to know the name of that location. For example, if the glass separates a Corridor and a Conference Room, and the viewer is in the Corridor, you would indicate "*First Surface from Corridor Side*".

2 When viewing the glass is the film to be on the same side as you or on the opposite?

Same Side = First Surface
Other Side = Second Surface



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Questions?

Ask your sales representative for more information.

We're here to help!