

## WINDOW FILM



This kit contains 2 samples of our Optically Clear Polyester Window Film. Together they demonstrate the four standard Product Types available through our window film program.

### WINDOW FILM WHITE INK ONLY

- White ink can be utilized to create monochromatic designs with varying opacities.

### WINDOW FILM WHITE AND COLOR INK

- This sample demonstrates the various ways that color and white ink can be applied to the film.
- White ink can be added to create an opaque effect when layered behind colored inks.
- When utilizing this application, the design can only be viewed from one side of the glass.

### WINDOW FILM COLOR / WHITE / COLOR

- Create a design utilizing color and white inks, which is viewable from both sides of the glass.
- “Color/White/Color” is the commonly used term to describe the combination of color and white inks which allows the image to be viewable on both sides of the glass. This is more widely used than color that is only viewable from one side.

### PRIVACY WINDOW FILM

- A frosted or privacy effect can be achieved by utilizing shades of color to create semi opaque design elements. This effect is created with color inks only.

### WINDOW FILM WHITE INK OPACITIES

- Selecting an opacity of White Ink is one of the most common window film customizations as it can be used to create privacy as well as control the opacity of Color Ink. This sample demonstrates our 6 standard opacities:
- Opacity 1 (5% White Ink)
- Opacity 2 (7% White Ink)
- Opacity 3 (10% White Ink)
- Opacity 4 (20% White Ink)
- Opacity 5 (30% White Ink)
- Opacity 6 (50% White Ink)
- Opacities above 50% tend to become indistinguishable from one another.

### DIMENSIONS

- When specifying window film, 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

- 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.



## INK COMBINATIONS

- There are various ways that White and Color 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.
  - **White Ink Only** - White inks are more opaque than color inks and also appear frosted in nature.
  - **Color and 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).

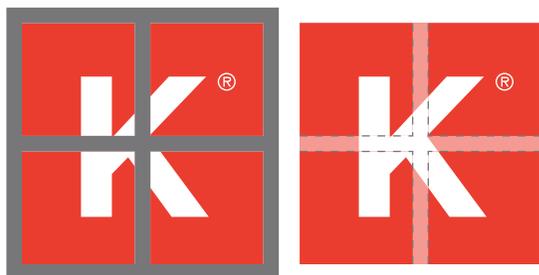
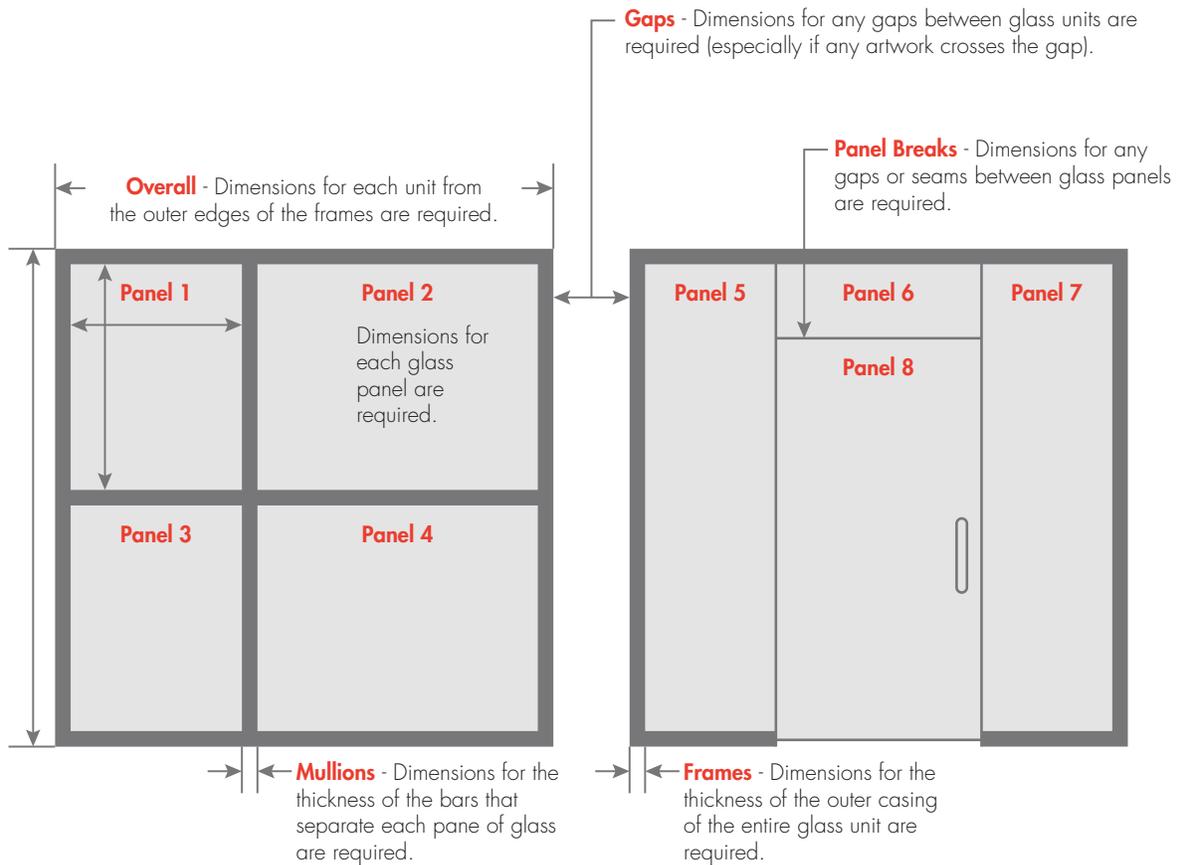
## OPACITY

- 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.
- Even at 100% opacity, White ink will not completely block out all light. This is especially important when printing text on film where the image is viewable from both sides. It is not recommended to try to print text that is readable from both sides, as the "backwards" text from the other side of the film will be visible.
- We are able to achieve the privacy or frosted effect utilizing the opacities of color ink to obscure vision.

## GRADIENTS

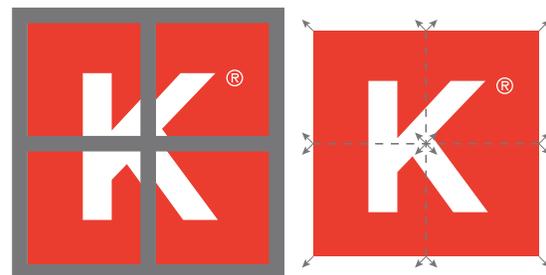
- A Gradient is a print that starts as one color or opacity and fades to a different color or opacity.
- Gradients of White ink will always fade from one opacity to another opacity (as White ink is only one color).
- Gradients of Color inks will always allow light to pass through, unless backed by White ink (as the opacity of Color inks cannot be controlled).
- We do not recommend gradients utilizing both White and Color inks in unison. White & Color inks graduate at different rates, and 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, and transitions to no less than 5% White.

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.



**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



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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

