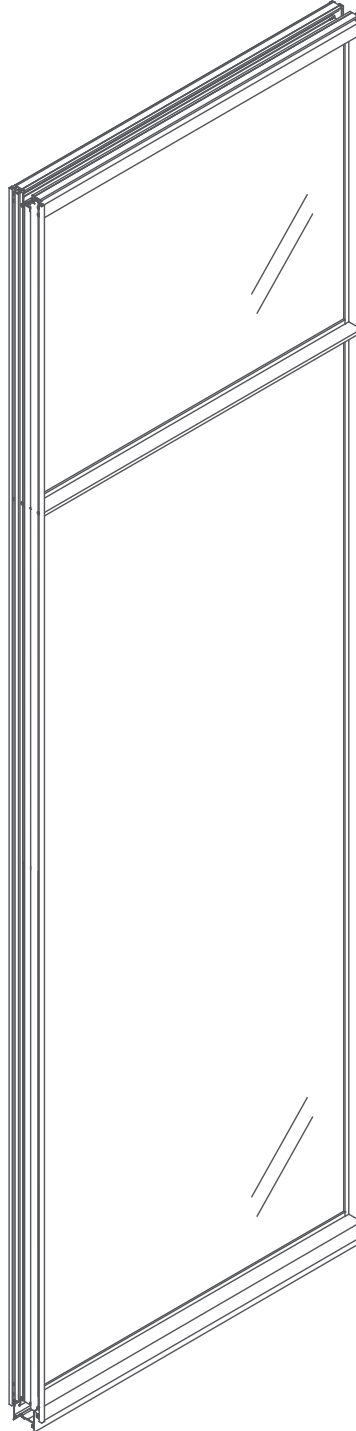


OVERVIEW - TECH SHEET

SWITCHED QUICKFROST™ GLASS
CUSTOMER'S OWN MATERIAL

build better™
DIRTT



QUICKFROST™ OVERVIEW

With the flip of a switch, glass walls can instantly change from privacy to non-privacy. Using technology similar to LCD screens, liquid crystals are sandwiched between layers of transparent conductive film, then laminated between two pieces of glass. When electricity is applied to the film, the liquid crystals line up and the window is in the non-privacy mode. When power is turned off, the crystals return to their natural position and the glass appears opaque (privacy mode).

QuickFrost™ Glass is appropriate for architectural use in DIRT Center Mount Glass Walls, including Stick Built walls. It is not suitable for surface mounted glass on Solid Walls.

QuickFrost™ Glass can be obtained directly from suppliers for site installation; delivery times are dependant on Goldray.

FEATURES

- Electrically Switched Glass can be changed from privacy to non-privacy mode.
- QuickFrost™ Glass can save on heating, air-conditioning and lighting costs.
- Alternative to installing and maintaining blinds or curtains; no moving parts.

PREFERRED VENDOR

Goldray QuickFrost™ Glass, Goldray Glass, Calgary, AB

phone: 403-236-1333

email: info@goldrayglass.com

website: www.goldrayglass.com



Figure 1 - QuickFrost Switched Off



Figure 2 - QuickFrost Switched On

ORDER INFORMATION

QuickFrost™ Glass solutions are Customer's Own Material (COM) and must be coordinated, priced, specified and ordered by the DIRT™ Partner (DP) and supplied locally "By Others". QuickFrost™ Glass solutions should be communicated and reviewed with design engineers prior to order placement to confirm adequacy of the specified solution with the Authority Having Jurisdiction (AHJ). The components must be installed to meet the intent of the applicable electric code by a licensed electrician. It is the responsibility of the electrician to ensure the QuickFrost™ Glass is wired as per the Goldray Glass' instructions.

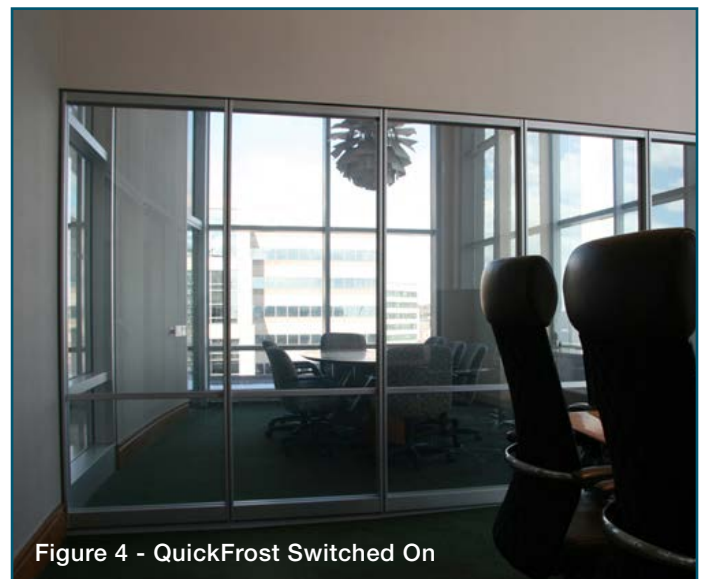
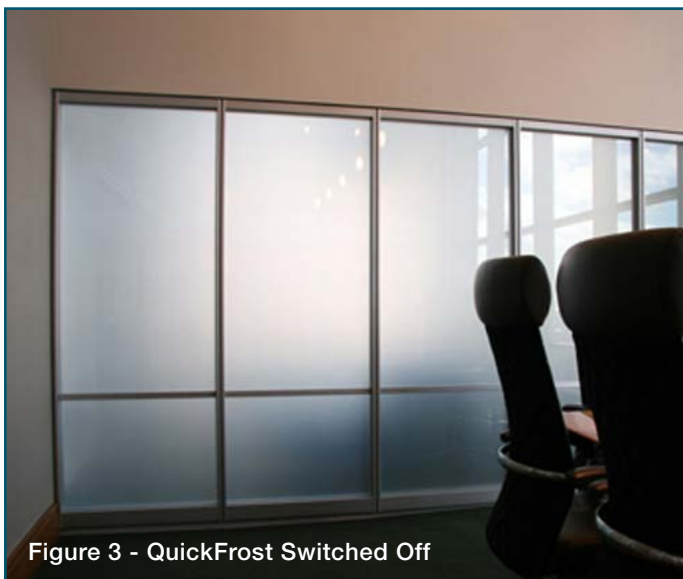
When ordering QuickFrost™ Glass for use in DIRT™ walls, the purchaser must provide details as specified on the following page and on the [Goldray Glass Tech Sheet](#) and consider the following.

CENTER MOUNTED SWITCH GLASS

1. Determine which frames require privacy glass.
2. Milling is required for the frames and edging in order to run power to the glass. Contact info@dirtt.com for pricing. The extrusions that will have wires and bus bars will need drawing 37535 assigned to the extrusion. This provides milling details for an 8" (203mm) pass through for wires. The location where wires connect to the glass is called a 'bus bar location'. This can be specified on any of the edges except when glass is butt jointed. Contact info@dirtt.com to butt joint privacy glass in an elevation and see notes below.
3. The power from the line must be stepped down to 50 VAC using the control box(es) provided by Goldray Glass. The total square footage of the project will determine the number of control boxes required. The control box is too large to fit inside the DIRT™ walls, so it must be located elsewhere such as in the ceiling.

BUTT JOINT GLASS

In order to power the glass, carbon strips are laminated inside the glass which provides voltage to the whole area. To maximize the power distribution, the carbon strip must be at least 12" (305mm) long. If the glass is being specified in a butt joint application where the glass is not next to an extrusion, bus bars must be applied to the top and bottom of the frame. In this condition, the top and bottom will both have a wire that needs to be run to the transformer when installing glass into frames.



COMPONENTS AND MATERIALS

CENTER MOUNT TILE OPTIONS

Annealed or Tempered QuickFrost™ Glass in 3/8" (10mm) thickness
The DIRT™ standard is 7/16" thick (11mm+) glass because it can be specified up to 4'-6 1/4" (1.38m) x 9'-8 1/4" (2.95m), however size limitations of DIRT™ glass walls apply.

GLASS EDGING

Edge trims (Glass Wipes) provided by DIRT™ are installed on sides, top and bottom to completely isolate the glass. This edge trim is designed to fit the DIRT™ glass channel in the aluminum extrusion.

STICK BUILT

In a Stick Built elevation with three or more panes of glass, the middle pane(s) would have no channel within a vertical frame to hide the bus bar edge. For these middle glass panels, install a bus bar on the top and bottom of each glass section. The electrician must then connect the wires at the top and bottom.

SAMPLE ELECTRICAL

Drive Voltage	36 VAC - 60 VAC
Amperage	less than 20 mA/ft ²
Power	approximately 0.3 watt/ft.

SAMPLE ENVIRONMENTAL

Storage	-20°C to 70°C or -4°F to 158°F
Operation	-10°C to 60°C or 14°F to 140°F

DIMENSIONS AND DETAILS

GOLDRAY GLASS SIZES

Minimum (Min.) Glass Size for Goldray QuickFrost	12" x 12" (305mm x 305mm)
Maximum (Max.) Glass Size for Goldray QuickFrost	48" x 110" (1.22m x 2.79m)

**NOTE: Restrictions apply based on glass makeup, please contact Goldray for more information.*

WALL FRAME

Standard Wall Thickness	4" (102mm)
Min. Module Width	12" (305mm)
Max. Module Width	48" (1.22m)
Standard Ceiling Height	Up to 110" (2.79m)*
Vertical Height Adjustment	
V1 Base	-5/8" (16mm) and +15/8" (42mm)
V2 Base	-3/8" (10mm) and +13/8" (35mm)

**NOTE: Wall Heights above 110" (2.79m) must be validated by DIRT™ to confirm walls do not exceed the maximum allowable deflection as per International Building Code (IBC).*

DOOR FRAME

Goldray use DIRT™'s butt hinge door as a standard.	
Frame Width (Single Door)	38" to 48" (965mm to 1.22m)*
Frame Width (Double Door)	73 1/8" to 93 1/8" (1.86m to 2.37m)*
Standard Ceiling Height	Up to 110" (2.79m)
Standard Frame Depth	4" (102mm)
Frame Height	Oversized in height; cut down on-site to fit opening

**NOTE: Maximum size depends on Door Style and Finish*

DOOR HINGES - COM FROM GOLDRAY

Door Hinge	Underwriter Laboratories (UL) Electric Hinge 1100PG
Hinges can be used in Phat, Goldie, and Slim Door Frames.	

TESTING AND APPROVALS

UL Listing	UL STD 60335-01
Canadian Standards Association (CSA) Listing	CSA STD C22.2 no. 60335-1

ISOMETRIC/PRIVACY GLASS WALL PANEL

