

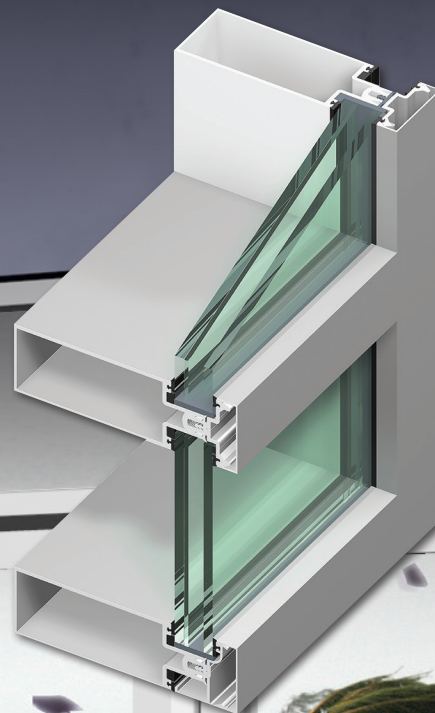


Curtainwall (FFS-CW)

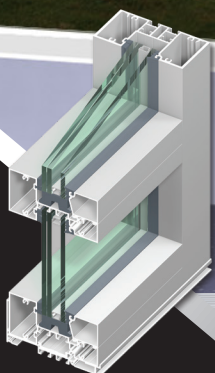
ForceFront® Storm Curtainwall (FFS-CW) Framing is a 2-1/2" face pressure bar system for use on single and twin-span applications in hurricane impact areas. FFS-CW meets the requirements of Florida Building Code High Velocity Hurricane (HVHZ) Zone 4 - large missile impact and cycling [ASTM E1886-05 /1996-09, TAS 201-94 and TAS 203-94]. FFS-CW has shear block construction and is available in captured or structural glazed options. A thermal separator and 1-5/16" insulated glass supports stringent modern energy code requirements.

ForceFront® Storm Storefront and Medium Stile and Monumental Entrance Doors complement the curtainwall, providing a complete hurricane impact resistant system that's easy to fabricate and install.

ForceFront® Storm Curtainwall products are available in a wide variety of standard anodized and painted colors are available to complement any project with warranted protection, as well as street appeal.



**ForceFront® Storm
Medium Stile Door**



**ForceFront® Storm
T34000 Dry Glazed
Glazed Storefront**

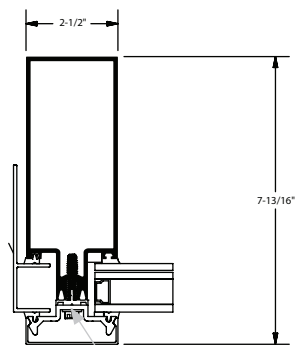
**ALSO
USED
WITH**

TUBELITE®
DEPENDABLE

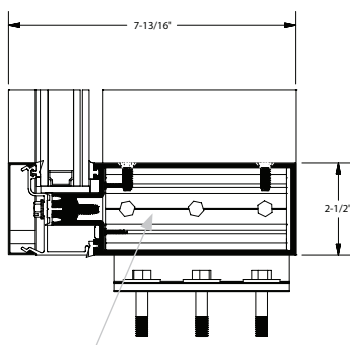
LEADERS IN ECO-EFFICIENT STOREFRONT,
CURTAINWALL AND ENTRANCE SYSTEMS



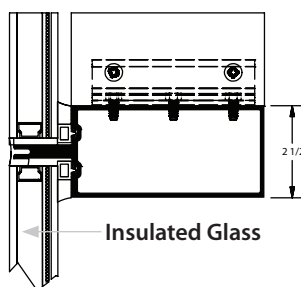
Tubelite ForceFront® Storm Curtainwall (FFS-CW)



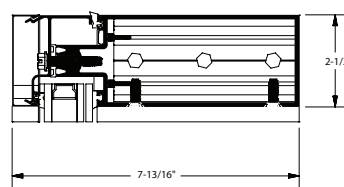
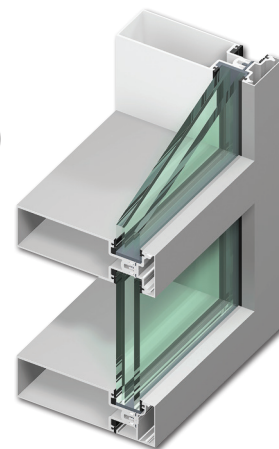
Thermal Separator



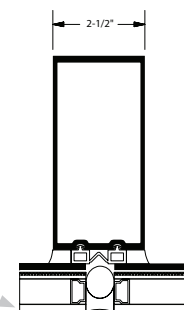
Shear Block Construction



Insulated Glass



Structural Glazed Horizontals and Verticals



ForceFront® Storm Curtainwall (FFS-CW) 2-1/2" x 7-13/16"		
Glass Makeup:	1-5/16" Insulated Lami: 1/4" (ext) - 1/2" air space - 9/16" lami (int) - options in table below	
Approvals:	Florida Product Approval including HVHZ and Texas Department of Insurance	
Options:	Single and twin span, captured, structural glazed horizontals and verticals, 900 corners, wet and dry glazing, and ForceFront Storm Doors (under separate approval)	
Hurricane Testing:	Large Missile (D) and Small Missile (A)	ASTM E1886-05 / 1996-09, TAS 201-94, and TAS 203-94
Air Infiltration:	0.06 cfm/ft ² @ 6.24 psf	ASTM E283-04 and TAS 202-94
Water Resistance:	15.6 psf (static and dynamic)	ASTM E331-00, TAS 202-94, and AAMA 501.1-05
U-Factor**:	0.40 (captured) 0.32 (SSG)	NFRC 100, glazed wall configuration
CRF (frame):	68	AAMA 1503-09
Thermal Cycling:	0° F - 180°F	AAMA 501.5-07
Structural:	up to +90 / -90 psf	ASTM E330-02 and TAS 202-94

** U-Factor per NFRC 100: COG = 0.24 with warm edge spacer, 1-3/4" x 4-1/2" non-thermal frame.

Refer to the U-Factor table at: www.tubeliteinc.com/products/curtainwall/forcefront-storm-curtainwall/ for other glass makeups and configurations.

ForceFront® Storm Curtainwall Product Specifications								
	Glass Size (max)	Frame Height (max)	Design Pressure (psf)	Missile Type	Interlayer Makeups Tested*	Texas Department of Insurance (TDI)	Florida Product Approval (FPA)	Florida Building Code HVHZ
Single Span Captured (dry glazed)	60" x 95 1/4"	149"	+/- 70	Large (D)	1/4" T - .090 Sentry Glas - 1/4" HS	CWFS-41	FL17035.3	Yes
Single Span Captured (wet glazed)	60" x 119 3/4"	148 1/4"	+/- 90	Large (D)	1/4" T - .090 Sentry Glas - 1/4" HS	CWFS-41	FL17035.3	Yes
Twin Span Captured (wet glazed)	60" x 120 3/4"	30'- 7 1/4"	+/- 70	Large (D)	1/4" T - .090 Sentry Glas - 1/4" HS 1/4" T - .075 Saflex CP - 1/4" HS	Coming Soon	FL17035.3	Yes
			+78 / -71	Small (A)	1/4" T - .060 Butacite PVB - 1/4" HS	CWFS-41		
Single Span SSG	48" x 120"	148 1/4"	+/- 60	Large (D)	1/4" T - .090 Sentry Glas - 1/4" HS 1/4" T - .075 Saflex CP - 1/4" HS	CWFS-41	FL17035.1	Yes
				Small (A)	1/4" T - .060 Butacite PVB - 1/4" HS			
Twin Span SSG	48" x 120"	30'- 6 1/4"	+/- 60	Large (D)	1/4" T - .090 Sentry Glas - 1/4" HS 1/4" T - .075 Saflex CP - 1/4" HS	CWFS-41	FL17035.1	Yes
				Small (A)	1/4" T - .060 Butacite PVB - 1/4" HS			

The above table is for reference only. Refer to FPA or TDI installation instructions for approved frame sizes and configurations, design pressures, mullion types, reinforcement requirements, glass makeups, anchorage requirements, etc.

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