

> Quality Protects

YKK AP ProTek™ Glazing Systems for Hurricane Protection



Entrances | Storefronts | Curtain Wall | Windows | Sliding Doors



Our Dedication

YKK AP America Inc., the true industry leader in hurricane impact resistant glazing systems, is proud to offer a complete line of glazing systems that meet both Miami Dade County (NOA) and Florida product approval. All **YKK AP ProTek™** systems are engineered and tested in accordance with ASTM E 1886 and ASTM E 1996 as well as the South Florida "High Velocity Hurricane Zone" test requirements: TAS 201, TAS 202, and TAS 203. **YKK AP ProTek™** systems are designed to protect your building from flying debris, both large and small missile, and the fierce cyclical winds associated with hurricanes. We provide storefront systems for monolithic & insulated glazing applications. We now also have the first fully tested and approved thermally broken storefront system. Our 35H hurricane impact resistant door is available with a wide variety of hardware options and has been tested and approved in sizes up to 8'-0" X 8'-0". Complete curtain wall systems are available for both monolithic and insulated glazing and may be glazed from either the exterior or the interior of the building. YKK AP also offers non-thermal and thermally broken operable window systems

and sliding glass doors in many different configurations to meet your project requirements. Contact your local sales representative for additional information on the family of hurricane impact resistant systems and their available glass options from YKK AP America Inc.

Hurricane Protection

The massive destruction of property and buildings from hurricanes has tragically emphasized the importance of hurricane-resistant building methods and codes. Experience has shown that structures built to certain minimum wind-borne debris and impact standards can successfully withstand a strong hurricane, while structures not built to certain minimum requirements are often severely damaged. Combined with other structural safety measures, the use of impact resistant glazing systems is critical to a building remaining intact during a hurricane. There were numerous examples of hurricane-resistant glazing systems performing well following Hurricanes Charley of 2004, and Katrina, Rita and Wilma of 2005.

Saffir-Simpson Hurricane Scale

Category	Wind Speed	Result
One	74-95 mph	No real damage to building structures. Damage primarily to unanchored mobile homes, shrubbery, and trees. Also, some coastal road flooding and minor pier damage
Two	96-110 mph	Some roofing material, door, and window damage to buildings. Considerable damage to vegetation, mobile homes, and piers. Coastal and low-lying escape routes flood 2-4 hours before arrival of center.
Three	111-130 mph	Some structural damage to small residences and utility buildings with a minor amount of curtain-wall failures. Mobile homes are destroyed.
Four	131-155 mph	More extensive curtainwall failures with some complete roof structure failure on small residences. Major erosion of beach. Major damage to lower floors of structures near the shore.
Five	Greater Than 155 mph	Storm surge generally greater than 18 ft above normal. Complete roof failure on many residences and industrial buildings. Some complete building failures with small utility buildings blown over or away.

Storefront & Entrance Systems

The YKK AP ProTek™ Non-Shuttered Systems comply with Impact & Cycle Testing Requirements for **Large and Small Missile** and meet or exceed the Air, Water, and Structural Requirements.

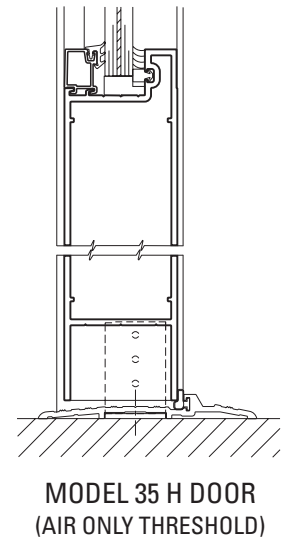
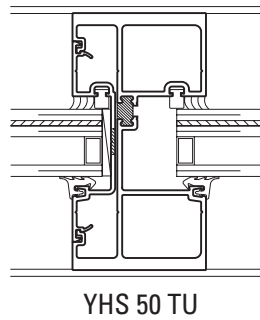
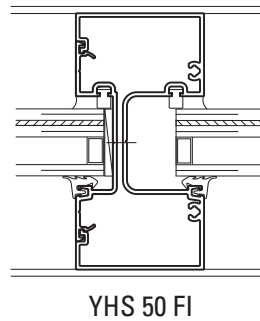
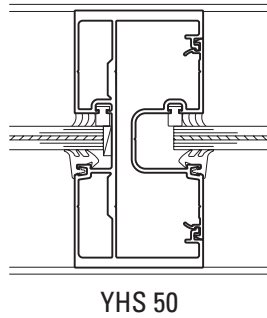
- YHS 50 Framing System**

 - Design Pressure up to +70/-90 psf
 - Glazing: 9/16" Monolithic
- YHS 50 FI Framing System**

 - Design Pressure up to +/-70 psf
 - Glazing: 1-5/16" Insulating
- YHS 50 TU Framing System**

 - Thermally Broken using YKK AP Thermabond Plus™ Technology
 - Design Pressure up to +/-70 psf
 - Spans up to 9'-0" tall
 - Glazing: 1-5/16" Insulating
- 35H Entrance Doors**

 - Singles: 4'-0" x 8'-0", Pairs: 8'-0" x 8'-0"
 - Transom Frames up to 10'-0"
 - Maximum Security Locking System (Five Point for Pairs and Three Point for Single Doors) or Optional Exit Devices



Curtain Wall Systems

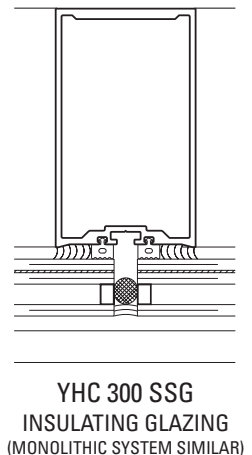
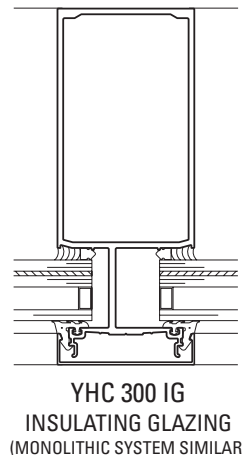
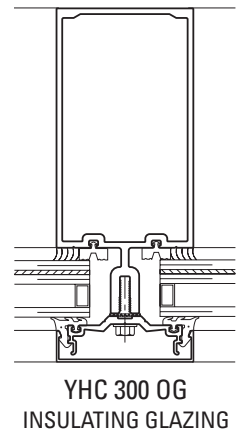
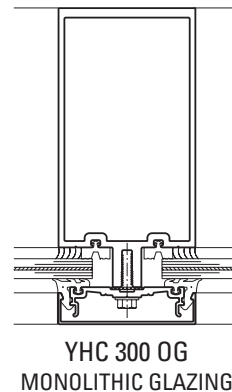
YKK AP offers three complete YKK AP ProTek™ curtain wall systems for Non-Shuttered Applications. All three systems have been thoroughly tested and approved for both **Large and Small Missile Impact Resistance**.

- YHC 300 OG Outside Glazed**

 - Single & Multiple Spans Design Pressures up to +/-90 psf
 - Linear Spacing of Verticals up to 5'-0" CL to CL
 - Glazing: 9/16" Monolithic & 1-5/16" Insulating
- YHC 300 SSG Structural Silicone @ Intermediate Verticals**

 - Single & Multiple Spans Design Pressures up to +/-90 psf
 - Linear Spacing of Verticals up to 4'-0" CL to CL
 - Glazing: 9/16" Monolithic & 1-5/16" Insulating
- YHC 300 IG Inside Glazed**

 - Single & Multiple Span Design Pressures up to +/-130 psf for Monolithic, +/-120 psf for Insulated*
 - Linear Spacing of Verticals up to 5'-0" CL to CL
 - Glazing: 9/16" Monolithic & 1-5/16" Insulating



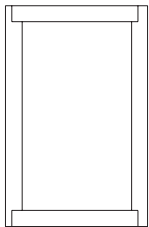
Operable Windows and Sliding Doors

YKK AP offers three operable windows and two sliding doors for Non-Shuttered Applications. Each product has been thoroughly tested for both Large and Small Missile Impact Resistance.

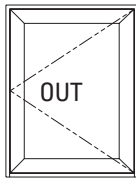
- YOW 225 H Non-Thermal Operable & Fixed Windows**
 -Glazing: 9/16" Monolithic
 -Large and Small Missile up to +/- 65 psf for Operable, +70/-90 psf for Fixed
- YOW 225 TUH Thermally Broken Operable & Fixed Windows**
 -Glazing: 1-3/16" Insulating
 -Large and Small Missile up to +/- 65 psf
- YVS 410 TUH Thermally Broken Single Hung & Fixed Windows**
 -Glazing: 1-1/16" Insulating
 -Large and Small Missile up to +80/-120 psf
- YSD 700 H Non-Thermal Sliding Glass Doors**
 -Glazing: 9/16" Monolithic
 -Large and Small Missile, 5'-0" x 8'-0" Panels up to +100/-120 psf
 -Glazing: 1-3/16" Insulating
 -Large and Small Missile, 4'-0" x 10'-0" Panels up to +100/-120 psf
- YSD 600 TH Thermal Sliding Glass Doors**
 -Glazing: 1-3/16" Insulating
 -Large and Small Missile, 4'-0" x 8'-0" Panels up to +/-120 psf



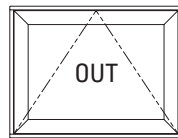
YOW 225 H / YOW 225 TUH



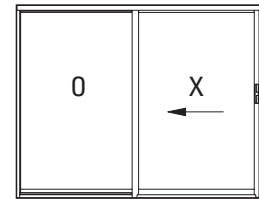
FIXED



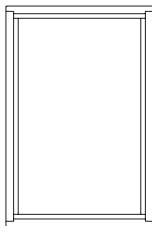
CASEMENT
OUTSWING



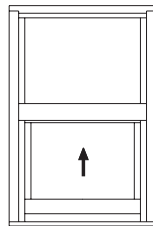
PROJECT OUT



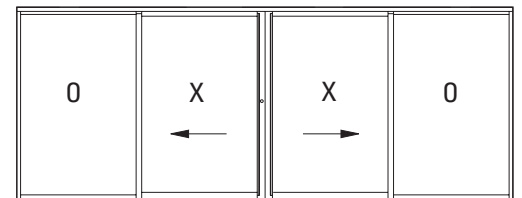
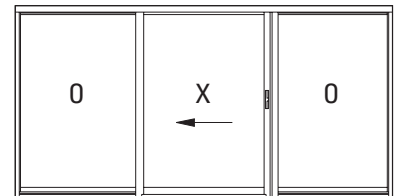
YVS 410 TUH



FIXED



SINGLE
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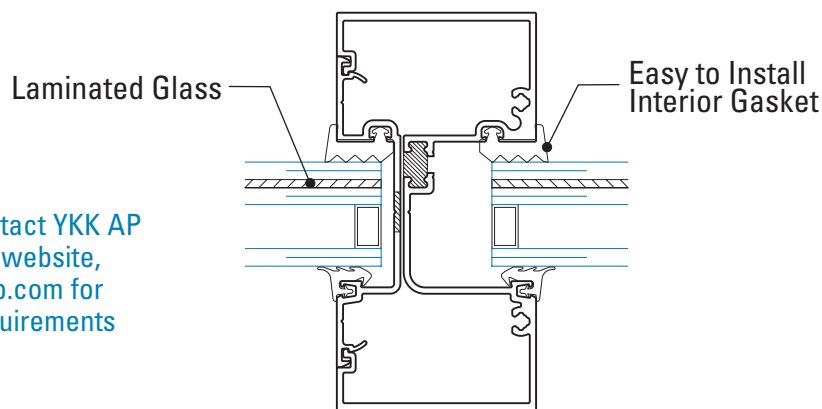
YSD 600 TH / YSD 700 H

YKK AP ProTek™ Dry Glazing Option

A Glazing Option for Large Missile Applications

YKK AP is constantly developing new and innovative solutions to meet the requirements of their markets. To help lower the "installed costs" for large missile applications, our product development engineers looked for ways to eliminate the interior structural silicone seal that has been historically required. Testing of the YKK AP ProTek systems with an interior gasket and new laminated glass products clearly demonstrated their ability to meet the testing criteria of the International Building Code, the Florida Building Code, and the "high velocity hurricane zone" of the Florida Building Code.

YKK AP is pleased to introduce "Dry Glaze" versions of our popular YKK AP ProTek entrance and storefront systems. The design of the YKK AP ProTek systems make it possible to protect building envelopes from flying debris and the strong cyclical winds associated with hurricanes without an interior structural silicone seal. A simple to install interior glazing gasket replaces the structural silicone to lower material cost, reduce glazing labor, and provide a tested and reliable solution that you can count on. Dry Glazed versions of the 35H entrance door and all three of our storefront systems have received Florida Product Approval for large missile applications.



YKK AP ProTek™ Hurricane System Dry Glazing Benefits

- **Lower Labor Costs**

A simple push in gasket replaces the task of taping off the glass and frame, and then applying and tooling the silicone.

- **Enhanced Reliability**

Dry glazing does not rely on the proper application of the structural silicone.

- **Simple to Re-Glaze**

Replacing glass in a dry glaze system is much less expensive as it is not necessary to cut out and clean off the old sealant prior to re-glazing.

- **Lower Material Cost**

Very little gasket is wasted while a significant portion of sealant is scraped (tooled) off and thrown away.













- **Improved Aesthetics**

A gasket provides a smooth and even seal against the glass and will not collect dust and dirt.

- **Single Source**

All gaskets are ordered and will ship together with the stock length material.

YKK AP ProTek™ Product Selection Guide

	System	Frame Width	Frame Depth or Max Size	Air Infiltration (CFM/SQ. FT.)	Water Infiltration (PSF)	Miami-Dade County Product Approval	General Florida Approval	Florida Approved Dry Glazed
Entrances & Storefronts	 YHS 50	2-1/2"	5"	0.04	10	Yes	Yes	Yes
	 YHS 50 FI	2-1/2"	5"	0.02	10	Yes	Yes	Yes
	 YHS 50 TU	2-1/2"	5"	0.02	10	Yes	Yes	Yes
	 35H Door	3-1/2"	Maximum Door Size Single: 4'-0" x 8'-0" Pair: 8'-0" x 8'-0"	0.065	10	Yes	Yes	Yes
Curtain Walls	 YHC 300 OG	3"	7-1/16" & 7-3/4"	0.01	20	Yes	Yes	Pending
	 YHC 300 SSG	3"	7-1/16" & 7-3/4"	0.01	20	Yes	Yes	Pending
	 YHC 300 IG	3"	7-1/16" & 7-13/16"	0.01	20	Yes	Yes	Pending
Windows & Sliding Doors	 YOW 225H	2-1/4"	Max Size Project Out: 5'-0" x 3'-0" Casement: 3'-0" x 5'-0" Fixed: 4'-0" x 7'-0"	0.10	12 (Operable) 15 (Fixed)	Yes	Yes	No
	 YOW 225 TUH	2-1/4"	Max Size Project Out: 5'-0" x 3'-0" Casement: 3'-0" x 5'-0" Fixed: 4'-0" x 7'-0"	0.10	12 (Operable) 15 (Fixed)	Yes	Yes	No
	 YVS 410 TUH	4"	Max Size Single Hung: 3'-6" x 6'-0" Fixed: 4'-0" x 8'-0"	0.30	13	Yes	Yes	No
	 YSD 600 TH	6"	Max Size Panels to 4'-0" x 8'-0"	0.20	20	Yes	Yes	No
	 YSD 700H	7"	Max Size Panels to 5'-0" x 8'-0" Monolithic 4'-0" x 10'-0" Insulating	0.10	20	Yes	Yes	No