

$Pilkington \ \textbf{Profilit}^{\tiny{\text{m}}}$

Architectural Specification Manual



PILKINGTON PROFILIT GLAZING SYSTEM

Pilkington Profilit[™] architectural glazing systems have been designed for worldwide architectural markets. They incorporate the latest window and material technology. The framing and component details shown in this manual can only be obtained from Technical Glass Products.

The Pilkington Profilit glazing system is based on a range of unique cast glass channels, which have high structural strength and are contained within a custom designed aluminum perimeter frame. A unique feature of the Pilkington Profilit system is the wide range of glazing designs that can be achieved without the need to incorporate vertical or horizontal aluminum members.

For specifications, photographs, videos and additional information contact:

TECHNICAL GLASS PRODUCTS 8107 Bracken Place SE Snoqualmie, WA 98065

Office: 800.426.0279

425.396.8200

E-mail: tgp.sales@allegion.com

Web: tgpamerica.com

CSI-SPECIFICATION

Full copies of our CSI 08 43 26 specification can be downloaded from our Web site or obtained from our office.

This Architectural Specification Manual provides a summary of the specification, design and applications that can be achieved with Pilkington Profilit. Many special finishes and components are available, please consult Technical Glass Products.

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SECTION 1 | INTRODUCTION



Introduction

Pilkington **Profilit**™

TRANSLUCENT LINEAR CHANNEL GLAZING SYSTEM

The Pilkington Profilit™ translucent linear channel glazing system consists of unique, self supporting cast glass channels and an extruded metal perimeter frame. The end result is an opaque but light-transmitting wall. Pilkington Profilit can be used in interior or exterior applications. The "U-shaped" channels can be installed either vertically or horizontally.

The glass is available in a variety of colors and textures with varying translucency allowing for the passage of natural light without the loss of privacy. Pilkington Profilit is energy efficient, provides excellent sound reduction, and it's one of the most cost-efficient glass wall systems available. Single or dual glazing options are available for interior and exterior applications, including cladding and screen walls.

FEATURES

- Available in long channel lengths (23 feet/7 meters)
- Allows natural light while maintaining privacy
- Can be tempered to meet impact safety requirements
- Energy efficient
- Excellent light transmission
- Sound insulation (up to 44 db)
- Can be utilized in curved walls
- Installs vertically or horizontally
- · Aluminum perimeter frame with full range of finish options
- Minimal maintenance
- Proven performance -- used in Europe for more than 40 years

PROFILE OPTIONS

Series	Flange	Glass Thickness
K-60	2.36" (60 mm)	7 mm
K-41	1.61" (41 mm)	6 mm



Introduction

Pilkington **Profilit**™

DESIGN OPTIONS

Pilkington Profilit comes in a broad spectrum of colors, textures and finishes. Please visit tgpamerica.com to view any of these design options.

SURFACE TEXTURES

All textures can be sandblasted unless they have a surface applied specialty coating.

- · Standard: lightly dimpled surface
- · Macro: netted screen surface
- Slim Line: thin, linear grooves
- · Wave: well defined ridge texture
- · Clear: no visible texture

FUNCTIONAL COATINGS

Optional performance coatings improve U-values or better control solar heat gain. These options can't be sandblasted.

- Low-E: improved u-values
- Antisol®: improved solar heat gain

COLOR COATINGS/SANDBLASTED

All coatings can be applied onto all available textures.

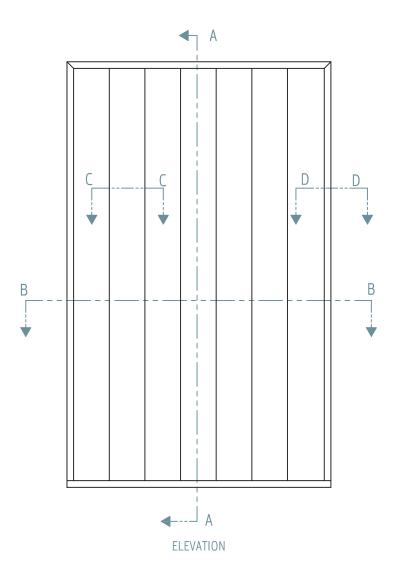
- · Amethyst-slight blue transparent coating
- Opaque Enameled Frit-a variety of opaque colored frits that are heat tempered to the glass
- Opaque Color Coating-a variety of high performance opaque colors that don't require tempering, most RAL color system options are available
- Metallic Color Coating-opaque custom-blended, high-performance metallic colors that don't require tempering
- Sandblasted-improves privacy while allowing light transmission; can be applied to all textures (unless they have a surface-applied specialty coating)

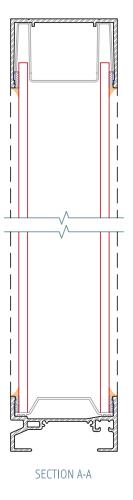
GLASS COLORS

- Standard Cast: Standard channel glass has an inherent slight green hue
- Low Iron: Pilkington Profilit™ OW (Low-Iron) is a low iron composition glass that creates a nearly colorless product with improved light transmission. Please see Pilkington Profilit OW (Low-Iron) fact sheet for more information.



Typical Vertical Installation



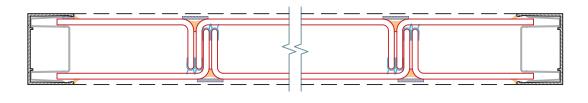


(Non-thermally broken)



Pilkington Profilit[™] Typical Vertical Installation

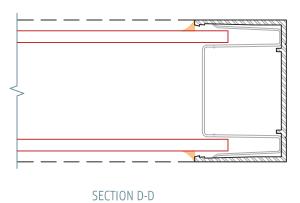
GLASS INSTALLED VERTICALLY SHOWN IN SECTIONAL VIEWS



SECTION B-B



SECTION C-C





Performance Values

Pilkington **Profilit**™

DUAL GLAZED K-60 PERFORMANCE VALUES

GLASS TYPE	U-VALUE GLASS ONLY	LIGHT TRANSMISSION	SOLAR HEAT GAIN COEFFICIENT	STC RATING	SHADING COEFFICIENT
STANDARD CAST	0.49	75%	0.70	42	.75
CLEAR	0.49	75%	0.70	42	.75
AMETHYST	0.49	52%	0.51	42	.59
ANTISOL	0.49	41%	0.38	42	.52
PLUS 1.7 (LOW-E) COATING ON #3 SURFACE	0.40	70%	0.45	42	.73
LOW-IRON	0.49	90%	0.70	42	**

See Page 6 for information on Lumira® aerogel insulation which maximizes the performance values for the Pilkington Profilit system.



^{*}K-41 Series is typically used in interior installations, thus performance values are not listed.

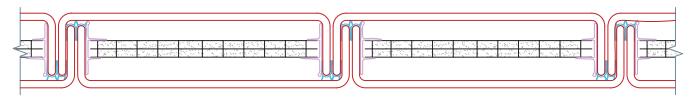
^{**} Performance details coming soon.

³M S20SIAR400 Film is available for Solar Heat Gain control. Contact TGP at 1-800-426-0279 for performance information.

Lumira Aerogel Insulation

LUMIRA® AEROGEL

Lumira aerogel, formerly Nanogel® aerogel, a translucent surface-treated amorphous silica, is a safe and non-hazardous material. It is encased in 16 mm polycarbonate sheeting, which is centered in the Pilkington Profilit channel glass cavity. Combined with Pilkington Profilit channel glass, all the components of the system are safe, recyclable and environmentally friendly. For projects requiring extra thermal performance, contact TGP for custom Lumira aerogel information.



What is Aerogel?

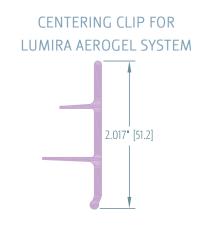
Aerogel is a unique form of highly porous, non-hazardous silica, described as a lattice work of glass strands with very small pores and extremely low solids content (5% solid, 95% air). It is known as the lightest weight and best insulating solid in the world.

PERFORMANCE ANALYSIS: PRELIMINARY TEST RESULTS

K 25/60 Series Profilit	Uninsulated	Lumira® Aerogel Panel* 16 mm(Clear)	Lumira® Aerogel Panel* 25 mm(Clear)
U Value (Glass Only)	0.49	0.21	0.19
Light Transmission	70%	50%	38%
Solar Heat Gain Coeff. (SHGC) Coeff. (SHGC) (NFRC 200)	0.63	0.42	0.31
Sound Transmission Coeff. (STC) - (E 90)	42	44,	<i>L</i> ₁ <i>L</i> ₁
Condensation Resistance Factor (CRF) (AAMA 1503)	G 70 F 60	G 79 F 60	G 79 F 60

KEY BENEFITS

- Reduces overall energy consumption
- Enhances daylight design
- Provides cost-effective daylighting solutions
- Simplifies installation
- Improves thermal and acoustic insulation
- Improves ability to meet building codes without tradeoffs





^{*} Additional Lumira aerogel options, including polycarbonate colors and 25 mm panels for increased performance, are available. Please contact TGP.

Testing / Certifications

Pilkington **Profilit**™

SAFETY GLAZING

National Building Codes reference ANSI Z 97.1-1984 and Consumer Products Safety Commission: Title 16 part 1201, 16 CFR 1201 safety standards for architectural glazing materials. Pilkington Profilit is available in tempered or filmed options to meet these impact safety requirements.

TEMPERING

Pilkington Profilit T Tempered Glass:

- Meets ASTM C1048-97B "STANDARD SPECIFICATION FOR HEAT TREATED GLASS"
- Meets ANSI Z97:1 and CPSC CFR 1201 (Cat. I and II)

HEAT SOAKING

Optional heat soaking of tempered Pilkington Profilit can be supplied according to standard Bauregelliste 11.4.2.

SAFETY FILM

3M Scotchshield Ultra Safety (SCLARL 400) can be laminated to the inside surface of Pilkington Profilit. Film is factory applied except in special circumstances.

Meets ANSI Z97:1 and CPSC CFR 1201 (Cat. I and II)

PRODUCT CERTIFICATION

The Pilkington Profilit Translucent Linear Glazing System has been installed throughout the world for over 40 years and has been tested in the United States, Great Britain and Germany for:

- Air, Water and Structural Performance
- Sound Reduction
- Thermal Performance
- Glazing Safety
- Impact Safety
- Hurricane Impact
- Seismic Performance

TESTING

Pilkington Profilit has been tested to meet the following standards:

- AAMA 501.4
- AAMA 101
- AAMA 1801-97
- AAMA/NWWDA 101/1
- S.297
- ASTM F 588-97
- NFRC 100-97
- ANSI Z97.1-1984
- CPSC 16CFR1201, Cat II
- Category II impact safety (with safety film or tempering)
- NOA #06-0810.12
- Miami Dade large missile impact TSA 202, 203 and 204

Formal test reports are available by contacting Technical Glass Products at 1-800-426-0279.



Systems

Pilkington **Profilit**™

ALUMINUM FRAMING SYSTEMS

Aluminum perimeter frames are extruded from window grade alloy 6063 complying with the requirements of ASTM B221. The frames consist of a basic channel system with a plastic insert for the glass. Various frame finishes are offered including anodized, painted and mill finish.

The profiles are available in two sizes for both the K-41 and K-60 Series glass types with many variations of extrusion to suit any installation condition. The profiles are also available with a thermal break, preventing cold bridging through the Pilkington Profilit system. The PVC insert locates the glass within the aluminum frame, preventing glass-to-metal contact and is impact and weather resistant. The simplicity of the aluminum framework, with the small number of components, allows for a quick easy installation.

Note: TGP framing systems are designed to meet or exceed the AAMA industry standards and US perimeter detailing.

FINISHES

MILL FINISH

Frame profiles may be supplied for finishing in accordance with individual contract requirements.

ANODIZED

Frame profiles can also be supplied with anodized finish in a full range of anodized colors. This is classified as a "superior external architectural" finish and has a surface penetration of .007 or greater inches.

ARCHITECTURAL PAINTED COATINGS

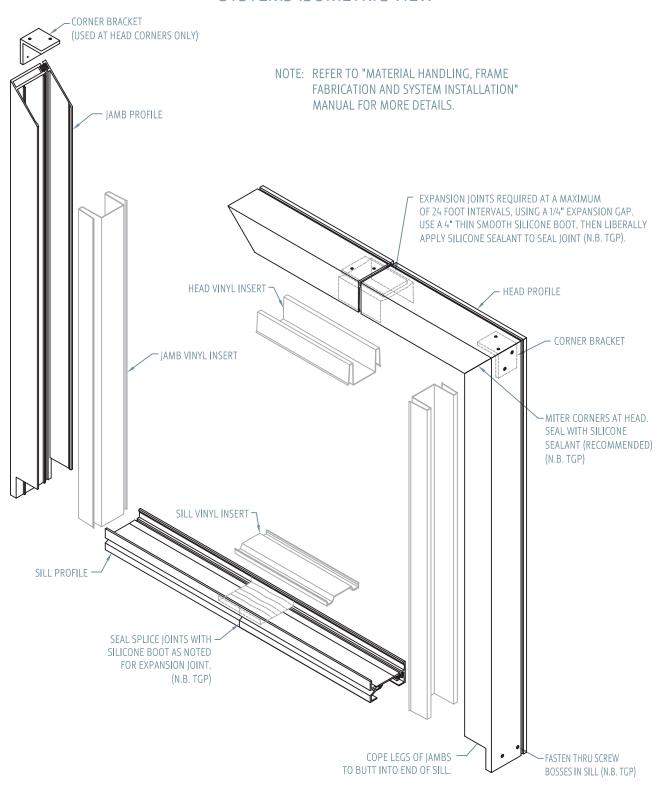
A wide range of architectural painting specifications can be pre-applied to the finish, including a wide range of PPG Architectural paint systems and colors.



Systems

SYSTEMS ISOMETRIC VIEW

Pilkington **Profilit**™





DATE

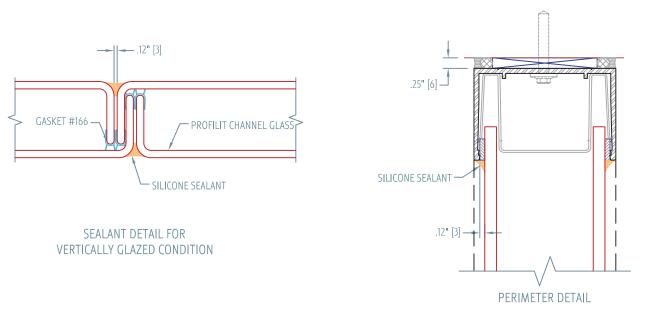
Pilkington **Profilit**™

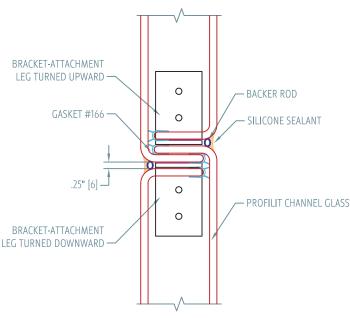
Sealant Details

SEALANTS

The sealant used is a high quality translucent silicone, which picks up the natural tint of the glass. The sealant is applied to all glass-to-glass, glass-to-aluminum and aluminum-to-structure joints, providing a completely weather-tight seal to the Pilkington Profilit system. The silicone recommended is a one-part moisture curing sealant. The sealant has outstanding durability, resisting chemical and atmospheric deterioration.

Recommended Sealants: Schnee Moorhead S731, Dow Corning 1199, GE Sil-Glaze SCS 2801, and Tremco Tremsil 600.





SEALANT DETAIL FOR HORIZONTALLY GLAZED CONDITION





SECTION 2 | DESIGN



SINGLE GLAZED TEMPERED MAXIMUM GLASS PROFILE LENGTHS IN FEET (Unsupported Glass Length for Vertical Installations)

Pilkington **Profilit**[™]

DESIGN WIND LOAD LB/FT ²	DESIGN WIND SPEED MPH	SINGLE GLA	ZING - Non Wir	red			
Pilkington Prof	ilit Glass Type	K25/41	K32/41	K50/41	K22/60	K25/60	K32/60
12.50	70.00	11.47	10.27	8.50	19.09	18.07	16.24
15.00	77.50	10.75	9.37	7.76	17.42	16.50	14.83
17.50	83.00	9.66	8.67	7.19	16.14	15.27	13.72
20.00	90.00	9.03	8.67	6.72	15.09	14.28	12.84
25.00	100.00	8.07	7.26	6.01	13.50	12.78	11.48
30.00	110.00	7.38	6.64	5.40	12.32	11.66	10.49
35.00	120.00	6.82	6.14	5.09	11.41	10.80	9.70
40.00	127.00	6.38	5.75	4.75	10.67	10.10	9.08
50.00	140.00	5.71	5.13	4.25	9.54	9.04	8.12
60.00	153.00	5.22	4.69	3.88	8.71	8.24	7.41

These tables give maximum installation lengths in feet for vertically glazed tempered Pilkington Profilit glass within closed buildings and should be used as a guide only. All design details should be confirmed by Technical Glass Products' technical service department. All installation lengths have been calculated to accommodate a 50% overload safety factor in accordance with National Testing protocol.

Please Note: Longer installation lengths may be achieved with the use of wind anchors. Contact TGP for further information



DOUBLE GLAZED TEMPERED MAXIMUM GLASS PROFILE LENGTHS IN FEET (Unsupported Glass Length for Vertical Installations)

Pilkington **Profilit**[™]

DESIGN WIND LOAD LB/FT ²	DESIGN WIND SPEED MPH	DOUBLE GLA	AZING - Non W	ired			
Pilkington Prof	ilit Glass Type	K25/41	K32/41	K50/41	K22/60	K25/60	K32/60
12.50	70.00	16.16	14.53	12.02	22.95	22.95	22.95
15.00	77.50	14.74	13.26	10.98	22.95	22.95	20.97
17.50	83.00	13.65	12.27	10.16	22.39	21.60	19.41
20.00	90.00	12.78	11.48	9.50	20.94	20.20	18.16
25.00	100.00	11.42	10.27	8.50	18.73	18.07	16.24
30.00	110.00	10.42	9.37	7.76	17.10	16.50	14.83
35.00	120.00	9.66	8.67	7.18	15.82	15.27	13.72
40.00	127.00	9.03	8.12	6.72	14.80	14.28	12.84
50.00	140.00	8.07	7.26	6.01	13.24	12.78	11.48
60.00	153.00	7.38	6.63	5.49	12.09	11.66	10.48

These tables give maximum installation lengths in feet for vertically glazed tempered Pilkington Profilit glass within closed buildings and should be used as a guide only. All design details should be confirmed by Technical Glass Products' technical service department. All installation lengths have been calculated to accommodate a 50% overload safety factor in accordance with National Testing protocol.

Maximum span (width) for horizontal Pilkington Profilit is 13'-0" or lesser lengths as indicated by the chart.

Please Note: Longer installation lengths may be achieved with the use of wind anchors. Contact TGP for further information



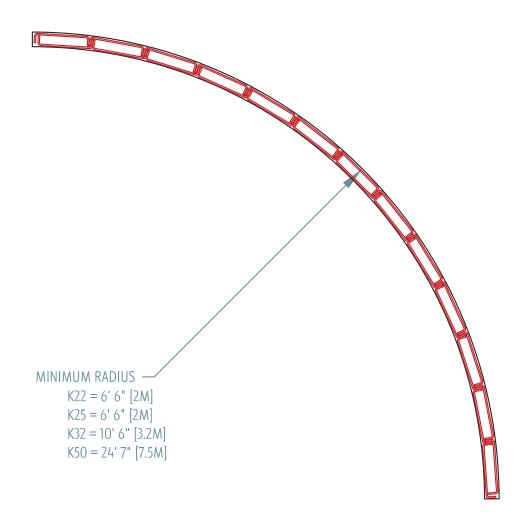
Design Options

BENDING LIMITS OF THE ALUMINUM PROFILES

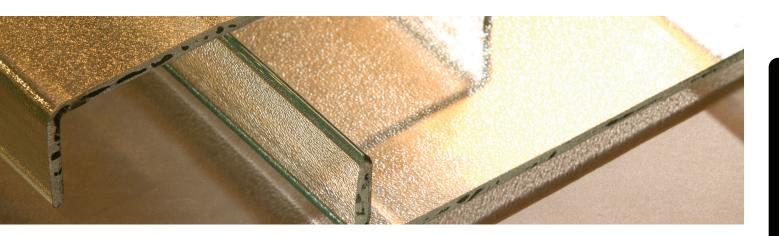
It is possible to curve the aluminum profiles successfully on plan. Non thermally broken profiles can also be curved on elevation to form arches; glass is cut at an angle to accommodate the arch and fit within the profile.

The minimum radius that the aluminum profiles may be bent is 6'6". This radius is measured to the outside of the frame as shown in the drawing below.:

K-60 Series 980WA and WT 981WA and WT





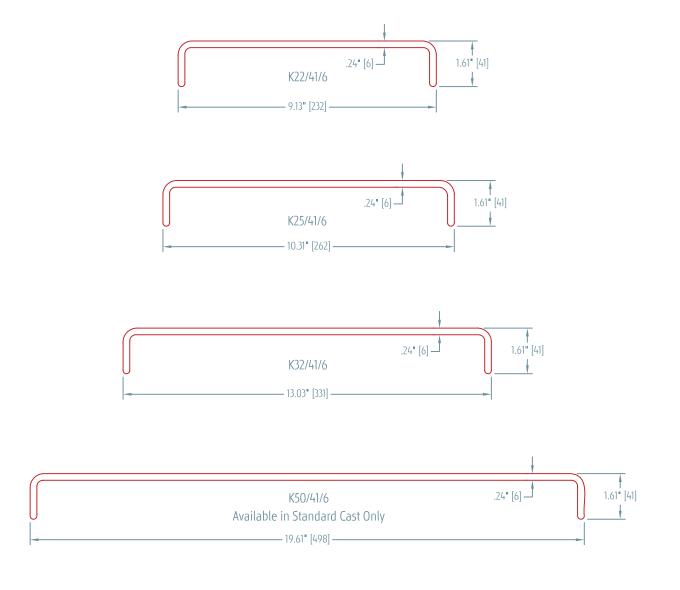


SECTION 3 | THE PRODUCT

PROFILES AND COMPONENTS

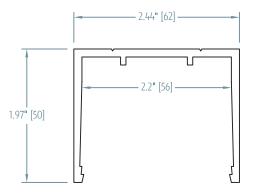


CHANNEL GLASS AVAILABLE IN .24 IN (6 mm) THICKNESS

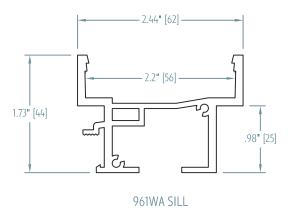




Pilkington **Profilit** K-41 Series WA Framing Profiles

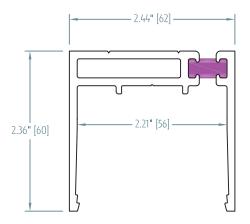


950WA HEAD / JAMB OR SILL FOR INTERIOR APPLICATIONS

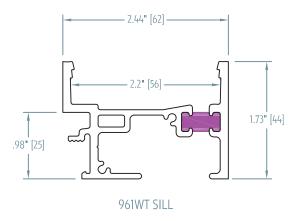




K-41 Series WT Thermal Framing Profiles



950WT HEAD / JAMB

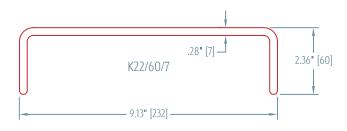


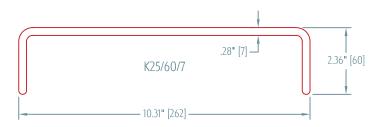


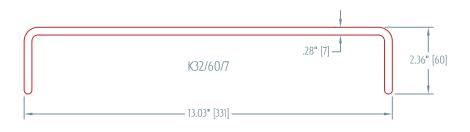
K-60 Series Glass

CHANNEL GLASS AVAILABLE IN .28 IN (7 mm) THICKNESS

Pilkington **Profilit**™

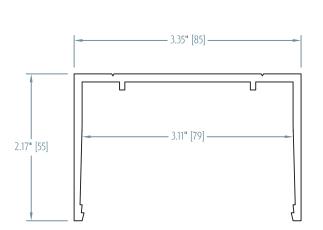




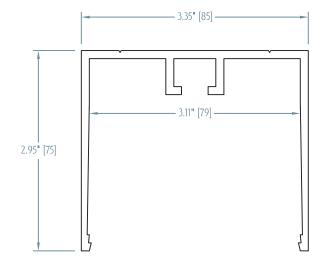




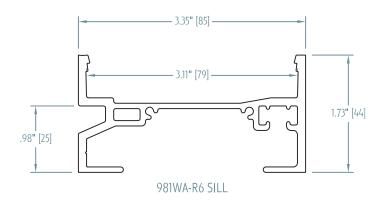
Pilkington **Profilit** K-60 Series WA Framing Profiles

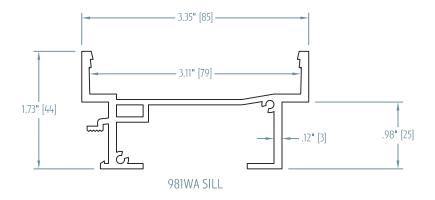


980WA HEAD / JAMB OR SILL FOR INTERIOR APPLICATIONS



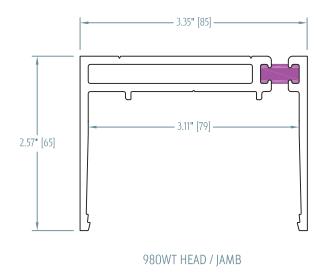
984WA HEAD / JAMB FOR HORIZONTAL INSTALLATION ONLY

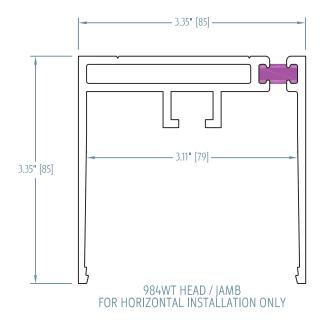


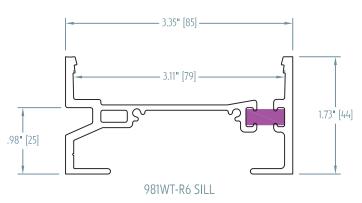


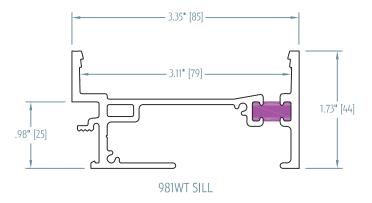


K-60 Series WT Thermal Framing Profiles







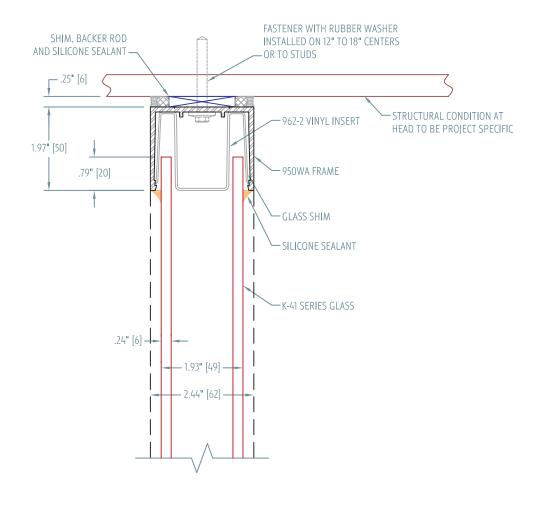




SECTION 4 | CONSTRUCTION

APPLICATIONS AND DETAILS

K-41 Interior Head Detail



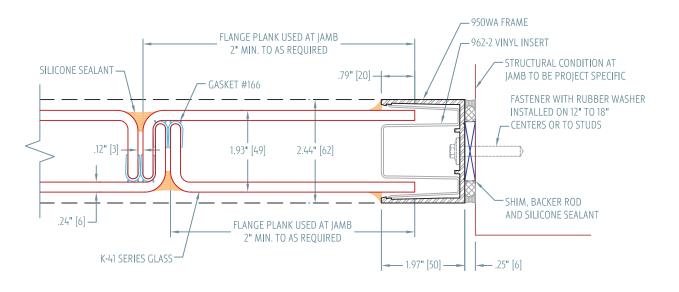


21

NOTE: USE WOOD BLOCKING TO MAINTAIN A MINIMUM 1/2" GLASS BITE INTO FRAMING.



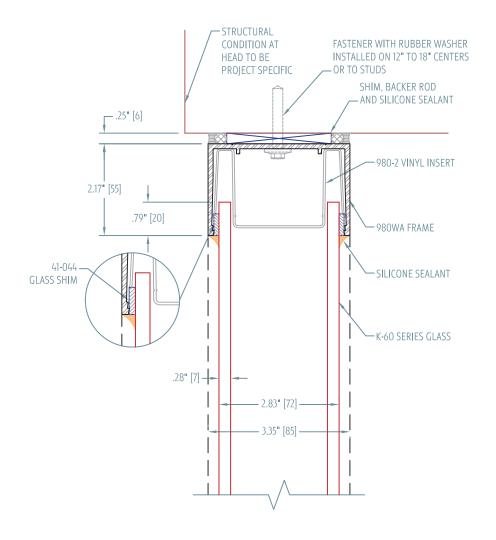
K-41 Interior Jamb Detail



NOTE: MINIMUM 3/4" GLASS BITE INTO FRAMING



Pilkington **Profilit** K-60 Exterior Head Detail

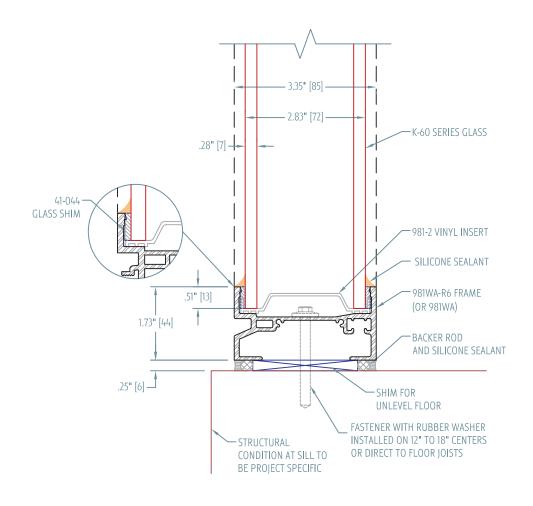


NOTE: MAINTAIN A 3/4" GLASS BITE INTO FRAMING



K-60 Exterior Sill Detail

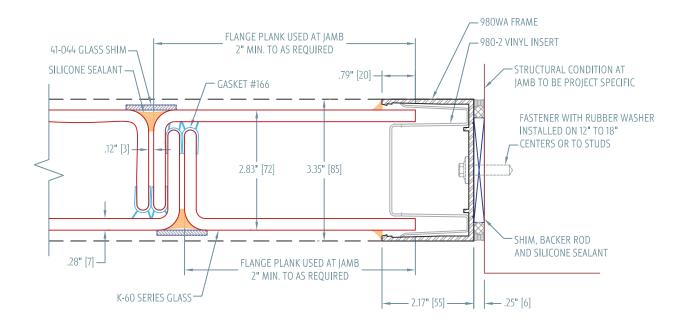
K-60 SERIES GLASS INSTALLED INTO 981WA FRAME PROFILE WITH 981-2 VINYL INSERT.



NOTE: MAINTAIN A 1/2" GLASS BITE INTO FRAMING



K-60 Exterior Jamb Detail

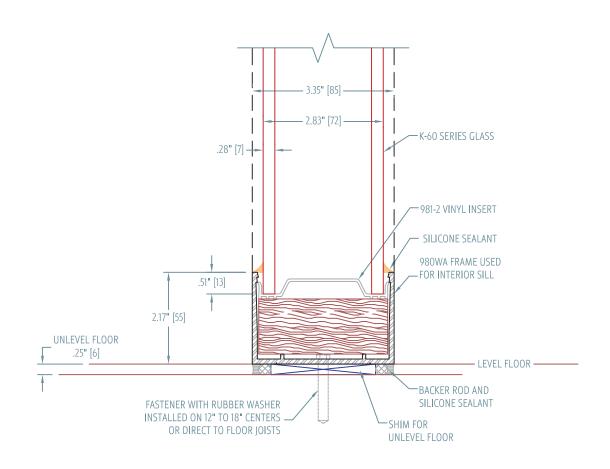


NOTE: MAINTAIN A 3/4" GLASS BITE INTO FRAMING



Pilkington **Profilit**[™]

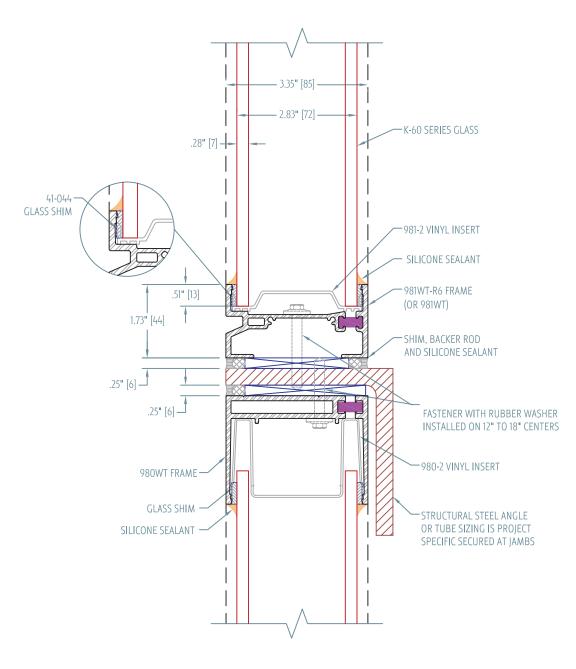
K-60 Interior Sill Detail



NOTE: USE WOOD BLOCKING TO MAINTAIN 1/2" GLASS BITE INTO FRAMING



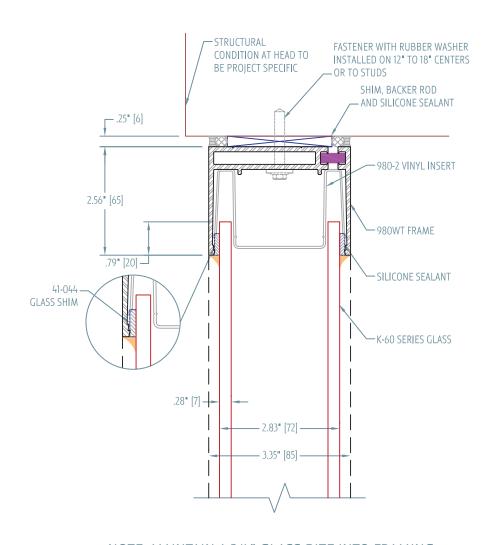
K-60 Exterior Thermal Stacking Detail



NOTE: SEE PAGE 37 FOR A HEAD RECEPTOR DETAIL TO ACCOMODATE INTERSTORY MOVEMENT.

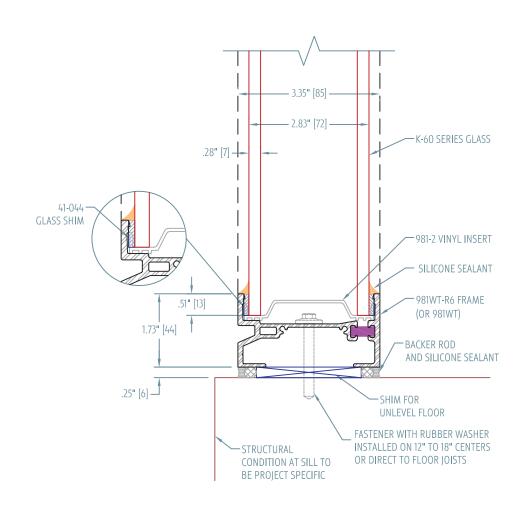


Pilkington Profilit™ K-60 Exterior Thermal Head Detail



NOTE: MAINTAIN A 3/4" GLASS BITE INTO FRAMING

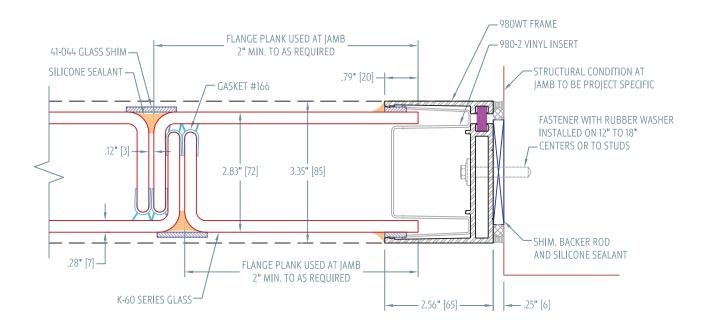




NOTE: MAINTAIN A 1/2" GLASS BITE INTO FRAMING



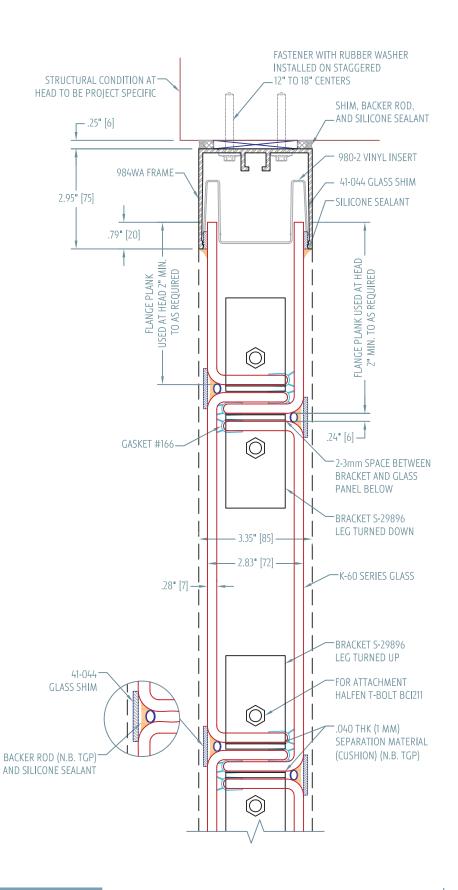
Pilkington Profilit™ K-60 Exterior Thermal Jamb Detail



NOTE: MAINTAIN A 3/4" GLASS BITE INTO FRAMING



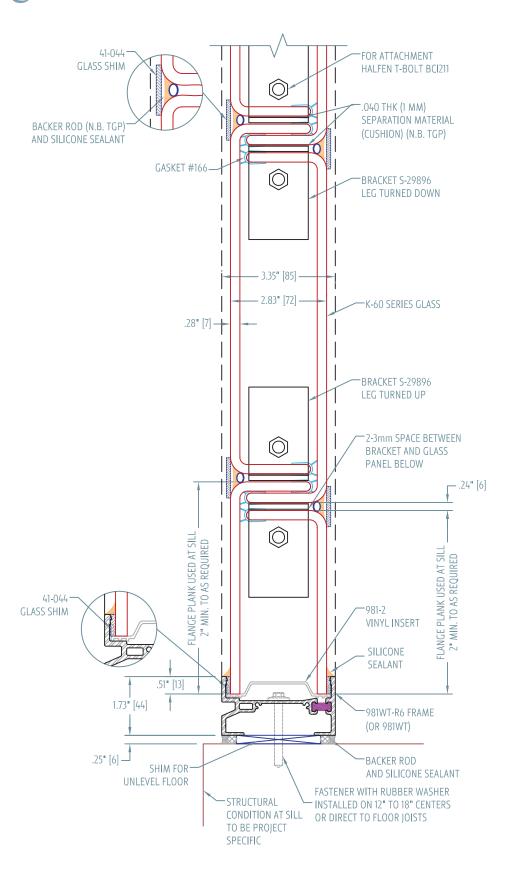
Pilkington **Profilit** K-60 Horizontal Head Detail





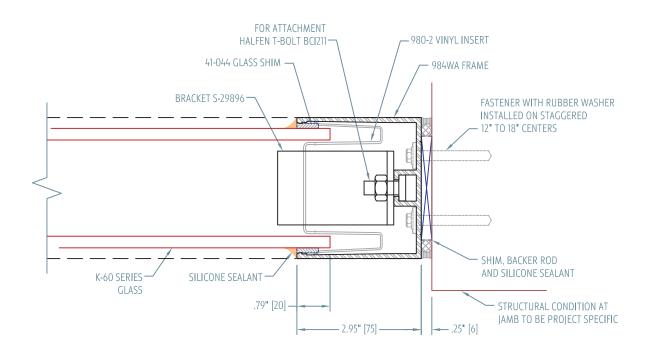
Pilkington **Profilit**™

K-60 Horizontal Sill Detail





Pilkington **Profilit** K-60 Horizontal Jamb Detail



NOTE: MAINTAIN A MINIMUM 3/4" GLASS BITE INTO FRAMING

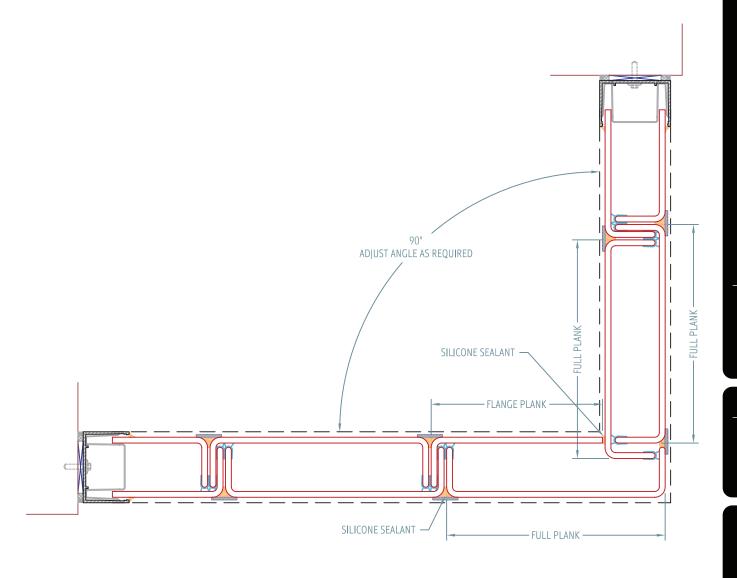


DATE

Pilkington **Profilit**[™]

Glass Corner Detail

GLASS SHOWN ON A CORNER WHERE FLANGES GIVE VERTICAL STRENGTH, TYPICAL OF BOTH K-41 AND K-60 GLASS

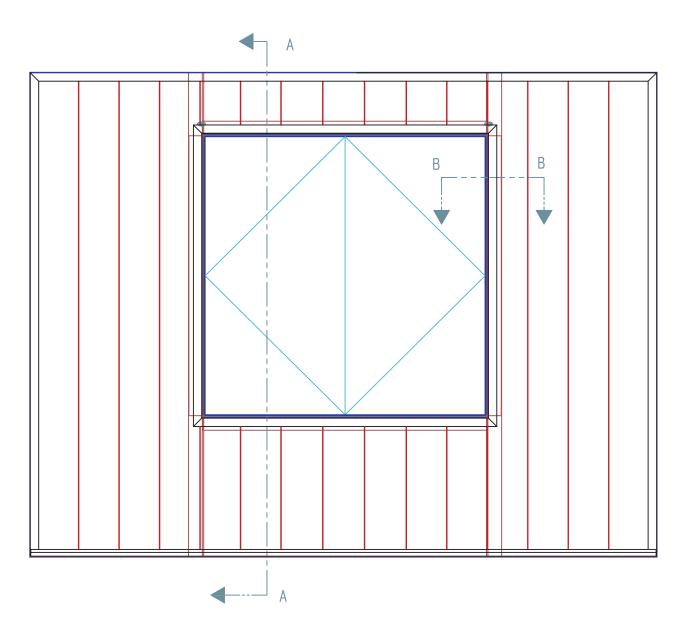




Pilkington **Profilit**™

Window into Pilkington Profilit Wall

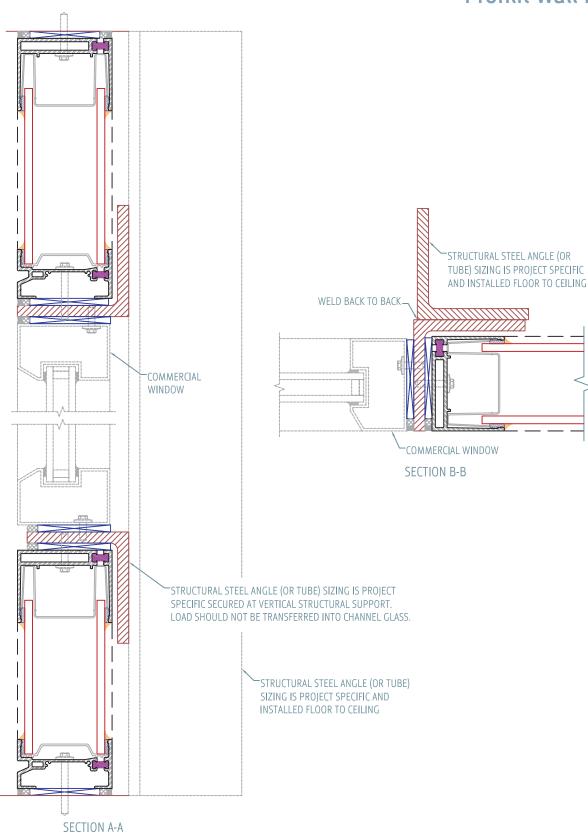
WINDOW GLASS INSTALLED INTO THE PILKINGTON PROFILIT SYSTEM WITH STRUCTURAL ANGLE USED AS SUPPORTS





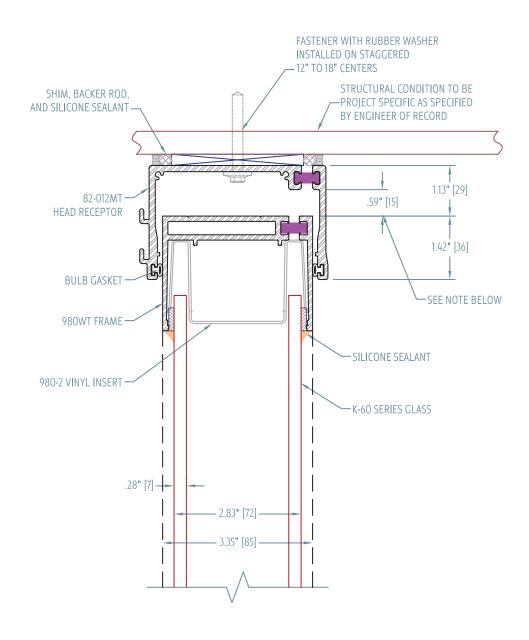
Pilkington **Profilit**[™]

Window into Pilkington Profilit Wall Details



Pilkington **Profilit**™

K-60 Exterior Thermal Head Receptor Detail



NOTE: GAP BETWEEN PROFILES IS DRAWN AND CALCULATED FOR .59" [15] MAXIMUM EXPANDED CONDITION: 1.11" [28]

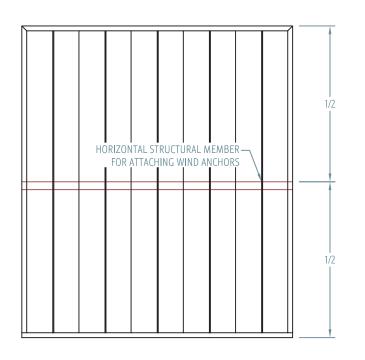
MAXIMUM COLLAPSED CONDITION: .12" [3]

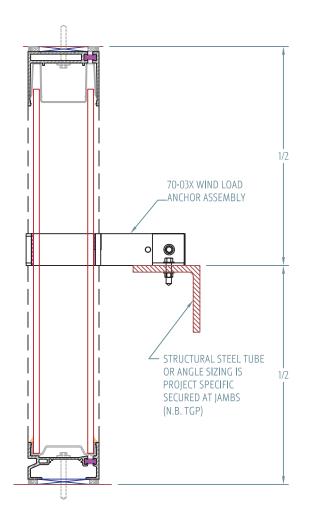


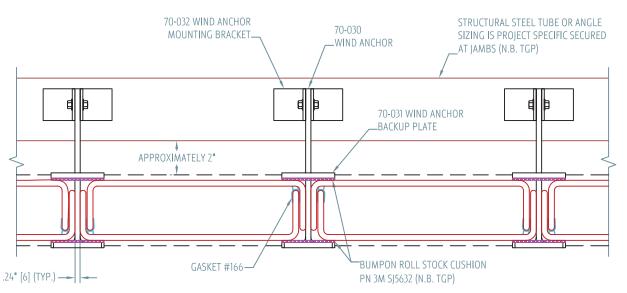
Pilkington **Profilit**[™]

K-60 Exterior Non-Thermal Wind Anchors for High Walls

ALSO AVAILABLE IN THERMALLY BROKEN PROFILES



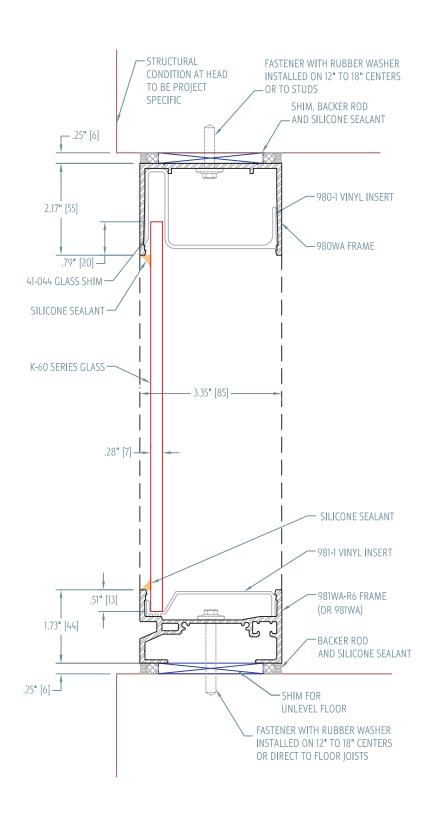






Pilkington **Profilit**™

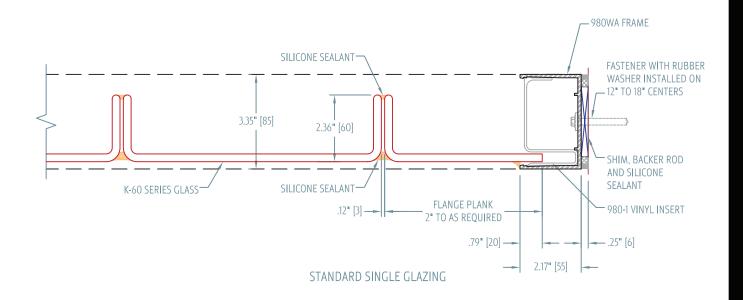
K-60 Exterior Non-Thermal Single Glaze Details

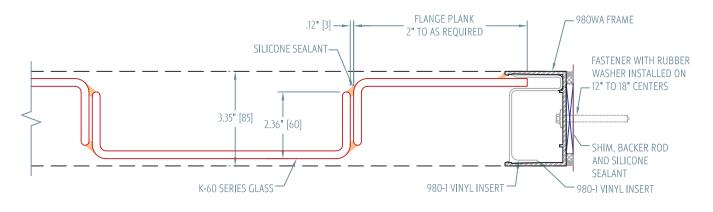




Pilkington **Profilit**™

K-60 Exterior Non-Thermal Single Glaze Details (cont.)





STAGGERED SINGLE GLAZING



Pilkington **Profilit**™ HURRICANE



SECTION 5 PILKINGTON PROFILIT™ HURRICANE



Introduction

Pilkington **Profilit**™ HURRICANE

INTRODUCTION

Pilkington Profilit™ Hurricane is the only tested and approved hurricane impact channel glazing system in North America. It is used in exterior building applications in hurricane-prone regions and resists the possibility of penetration from wind borne debris commonly associated with hurricane force winds. The system consists of unique, self-supporting cast glass channels and an extruded metal perimeter frame. The end result is an impact resistant translucent glass wall. The glass is available in a variety of colors and textures with varying translucency, allowing for the passage of natural light without the loss of privacy.

Pilkington Profilit Hurricane is energy efficient and provides excellent sound reduction. It is dual glazed for exterior applications and is available with optional light transmitting insulation.

FEATURES

- · Rated for Miami-Dade at 60 PSF design load and maximum glass length of 10'
- · Rated for Florida State Product approval for non impact glass as well as impact-rated glass, restricted to vertical orientation only
- · Colors: Standard Cast (patterned surface with slight green hue); Macro Cast (slight green color with netted screen texture); Amethyst (standard cast with a blue coating); Antisol® (standard cast with bronze coating); Clear (no pattern or hue) and Opaque (opaque polycarbonate laminate decreases translucency)
- · Polycarbonate laminated to the interior surface of the glass
- · Allows passage of light while maintaining privacy
- · May be insulated with Lumira® aerogel insulation for energy efficiency
- · Excellent light transmission
- · Sound insulation (up to 42 db uninsulated, 44 db with Lumira aerogel insulation)
- · Aluminum perimeter frame provides additional structural strength
- · Minimal maintenance

PROFILE OPTIONS

Series	Flange	Face Dimension	Reinforced Glass Thickness
K-70	2.36" (60 mm)	10.31 (262 mm)	.52" (13.35 mm)

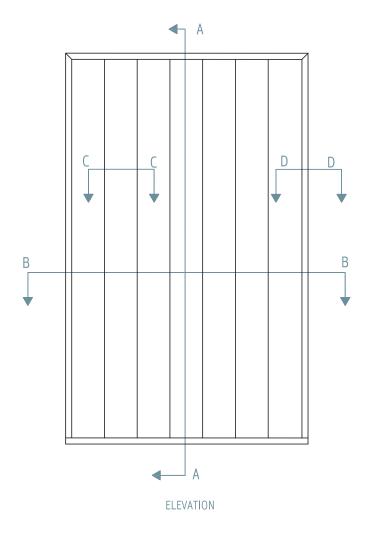
GLASS COLOR OPTIONS

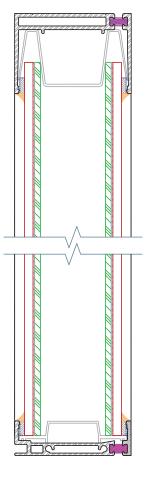
Standard Cast	Patterned surface with slight green hue		
Macro Cast	Netted screen texture with slight green hue		
Clear	No pattern and slight green hue		
Amethyst	Standard Cast with blue coating		
Antisol®	Standard Cast with a bronze color control coating for solar control		
Opaque	Opaque polycarbonate laminate (decreases translucency)		
Low Iron	Nearly colorless and available in Macro and Standard Cast textures		



Pilkington **Profilit**™ HURRICANE

Typical Vertical Installation





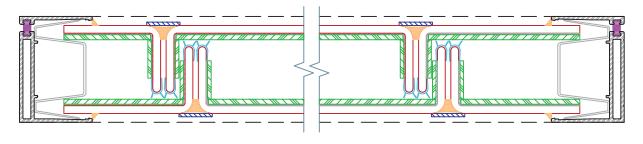
SECTION A-A



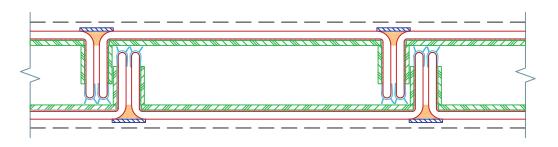
Pilkington **Profilit**™ HURRICANE

Typical Vertical Installation

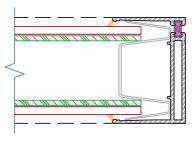
GLASS INSTALLED VERTICALLY SHOWN IN SECTIONAL VIEWS



SECTION B-B



SECTION C-C



SECTION D-D



Pilkington **Profilit**™ HURRICANE Performance Values

DUAL GLAZED K-60 PERFORMANCE VALUES

GLASS TYPE	U-VALUE GLASS ONLY	LIGHT TRANSMISSION	SOLAR HEAT GAIN COEFFICIENT	STC RATING	SHADING COEFFICIENT
STANDARD CAST	0.49	75%	0.70	42	.75
MICRO CAST*	-	-	-	-	-
CLEAR	0.49	75%	0.70	42	.75
AMETHYST	0.49	52%	0.51	42	.59
ANTISOL	0.49	41%	0.38	42	.52
OPAQUE*	-	-	-	-	-
LOW-IRON	0.49	90%	0.70	42	-

See Page 45 for information on Lumira® aerogel insulation which maximizes the performance values for the Pilkington Profilit Hurricane system.

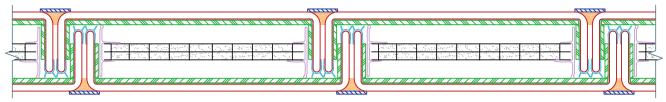


^{*} Performance values coming soon

Pilkington **Profilit**™ HURRICANE Lumira Aerogel Insulation

LUMIRA® AEROGEL

Lumira aerogel, formerly Nanogel® aerogel, a surface-treated amorphous silica, is a safe and non-hazardous material. It is encased in 16 mm polycarbonate sheeting, which is centered in the Pilkington Profilit Hurricane channel glass cavity. Combined with Pilkington Profilit Hurricane channel glass, all the components of the system are safe, recyclable and environmentally friendly. For projects requiring extra thermal performance, contact TGP for custom Lumira aerogel information.



What is Aerogel?

Aerogel is a unique form of highly porous, non-hazardous silica, described as a lattice work of glass strands with very small pores and extremely low solids content (5% solid, 95% air). It is known as the lightest weight and best insulating solid in the world.

PERFORMANCE ANALYSIS: PRELIMINARY TEST RESULTS

K 25/60 Series Profilit	Uninsulated	Lumira® Aerogel Panel* 16 mm (Clear)	Lumira® Aerogel Panel* 25 mm (Clear)	
U Value (Glass Only)	0.49	0.21	0.19	
Light Transmission	70%	50%	38%	
Solar Heat Gain Coeff. (SHGC) Coeff. (SHGC) (NFRC 200)	0.63	0.42	0.31	
Sound Transmission Coeff. (STC) - (E 90)	42	<i>L</i> ₄ <i>L</i> ₄	44,	
Condensation Resistance Factor (CRF) (AAMA 1503)	G 70 F 60	G 79 F 60	G 79 F 60	

^{*} Additional Lumira aerogel options, including polycarbonate colors and 25 mm panels for increased performance, are available.

FEATURES

- Reduces overall energy consumption
- · Enhances daylight design
- Provides cost-effective daylighting solutions
- Simplifies installation
- Improves thermal and acoustic insulation
- Improves ability to meet building codes without tradeoffs

CENTERING CLIP FOR LUMIRA AEROGEL SYSTEM 2.017" [51.2]



Pilkington **Profilit**™ HURRICANE Testing / Certifications

SAFETY GLAZING

Meets or exceeds the requirements of the National Building Code reference ANSI 97.1-1984 and Consumer Products Safety Commission: Title 16 part 1201, 16 CFR safety standards for architectural glazing materials.

PRODUCT CERTIFICATION

The Pilkington Profilit Hurricane channel glass system is a unique translucent glass specifically designed to conform to the hurricane impact regulations and is used in regions requiring resistance to wind borne debris.

This system has been tested in the United States for:

- · Air, water and structural performance
- · Sound reduction
- · Thermal performance
- · Glazing safety
- · Hurricane impact, NOA # 06-0810.12
- · Florida State product approval # FL 10792
- · Seismic performance

TESTING

Pilkington Profilit Hurricane has been tested to meet the following standards:

- · AAMA 501.4
- · AAMA 101
- · AAMA 1801-97
- · AAMA/NWWDA 101/1
- · S297
- · ASTM F 588-97
- · NFRC 100-97
- · ANSI Z97.1-1984
- · CSPC 16 CFR 1201, Cat. II
- · TAS 201, TAS 202, TAS 203

For copies of these tests and other testing not listed, please contact Technical Glass Products at 1-800-426-0279.



Systems

Pilkington **Profilit**™ HURRICANE

ALUMINUM FRAMING SYSTEMS

Aluminum perimeter frames are extruded from window grade alloy 6063 complying with the requirements of ASTM B221. The frames consist of a basic channel system with a plastic insert for the glass. Various frame finishes are offered including anodized, painted and mill finish.

The profiles are available for the K-70 Series glass types with many variations of extrusion to suit any installation condition. The profiles are also available with a thermal break, preventing cold bridging through the Pilkington Profilit Hurricane system. The PVC insert locates the glass within the aluminum frame, preventing glass-to-metal contact and is impact and weather resistant. The simplicity of the aluminum framework, with the small number of components, allows for a quick easy installation.

Note: TGP framing systems are designed to meet or exceed the AAMA industry standards and US perimeter detailing.

FINISHES

MILL FINISH

Frame profiles may be supplied for finishing in accordance with individual contract requirements.

ANODIZED

Frame profiles can also be supplied with anodized finish in a full range of anodized colors. This is classified as a "superior external architectural" finish and has a surface penetration of .007 or greater inches.

ARCHITECTURAL PAINTED COATINGS

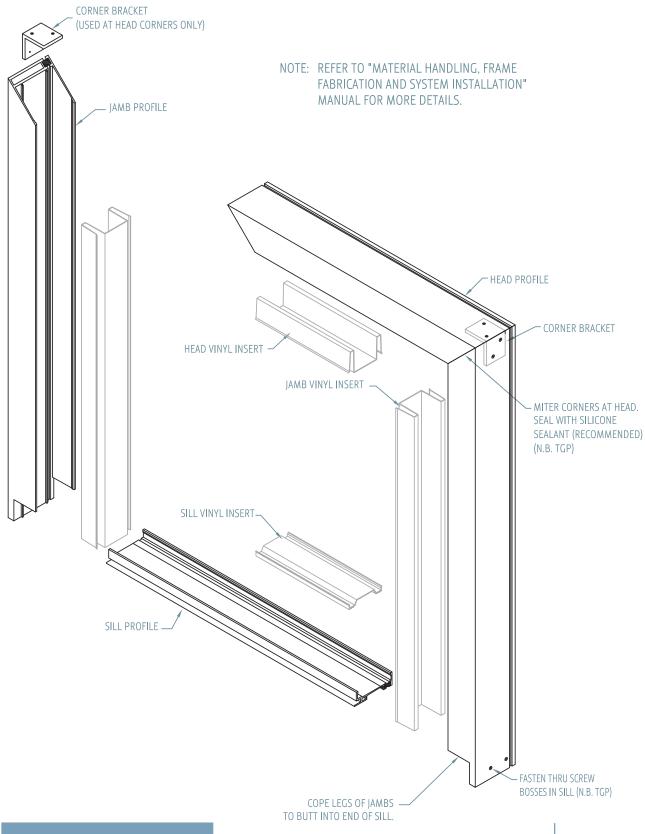
A wide range of architectural painting specifications can be pre-applied to the finish, including a wide range of PPG Architectural paint systems and colors.



Systems

Pilkington **Profilit**™ HURRICANE

K-70 SYSTEMS ISOMETRIC VIEW



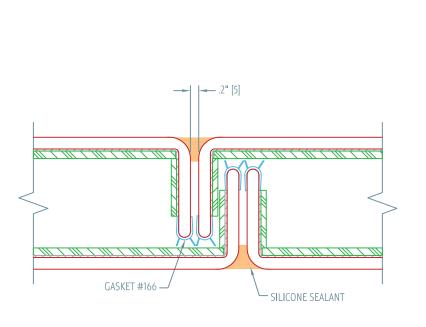
Sealant Details

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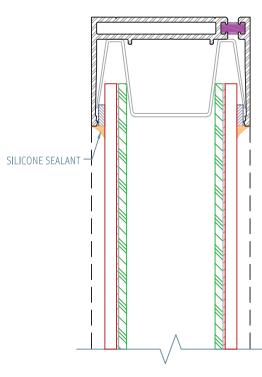
SEALANTS

The sealant used is a high quality translucent silicone, which picks up the natural tint of the glass. The sealant is applied to all glass-to-glass, glass-to-aluminum and aluminum-to-structure joints, providing a completely weather-tight seal to the Pilkington Profilit Hurricane system. The silicone recommended is a one-part moisture curing sealant. The sealant has outstanding durability, resisting chemical and atmospheric deterioration.

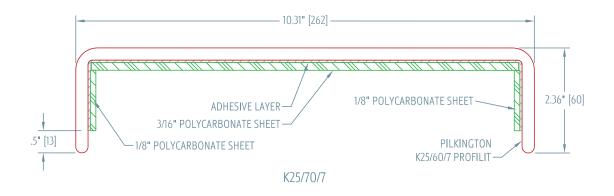
Recommended Sealants: Schnee Moorhead S731, Dow Corning 795, Dow Corning 1199, GE Sil-Glaze SCS 2801, and Tremco Tremsil 600.

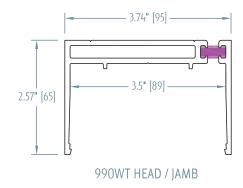


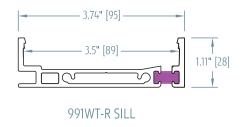
Pilkington **Profilit**™ HURRICANE



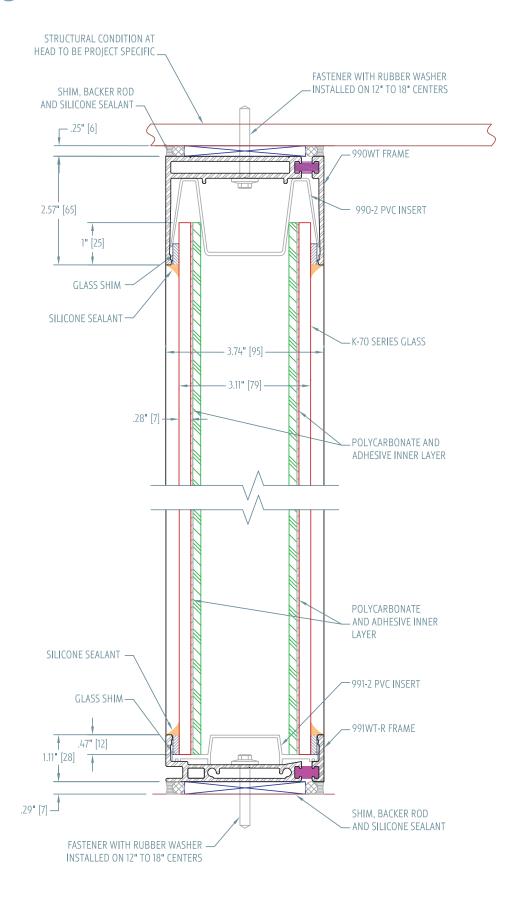
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Pilkington **Profilit**™ HURRICANE Applications and Details





Pilkington **Profilit**™ HURRICANE Applications and Details

