# CityLine











# CityLine Windows Size & Performance

- Patented OptiCore® Technology Framing System
  - 4-1/8" Architectural Grade Aluminum Frame
  - 2-7/8" Narrow Sight Lines
  - Dual Euro-Groove Frame System
- Azo-Core Thermal Barrier System for Increased Energy Efficiency and Reduced Thermal Conductivity
- Multiple Glazing Package Options
- Structural Mull Availability Offers Wider and Taller Sizing Possibilities
- Square (C600) and Bevel (C605) Stop Options for Enhanced Exterior Look
- Internal or Simulated Divided Light (SDLs) Grids Available
- High-Performance 2604 and 2605 Powder Finishes
- Optional Exterior and Interior (Two-Tone) Color Options
- Custom Color Matching and Heat Reflective Paint Options
- Easily Removable FlexScreen System

Window Sizing						
	Width		Hei	Max.		
Operation	Min	Max	Min	UI		
Awning Push Out	18"	72"	22"	48"	132"	
Awning Roto	24"	72"	24"	84"	132"	
Casement Push Out	24"	48"	22"	72"	132"	
Casement Roto	24"	48"	22"	96"	132"	
Direct Set	15"	144"	15"	144"	216"	

Series Options		
C600	Square	
C605	Beveled	



Window Performance						
Operation	Rating	Structural Load (P.S.F.)	Air Infiltration	Water (P.S.F.)	U-Value	SHGC
Awning	AW-PG70	70.18	0.01	12.11	0.17 - 0.28	0.19 - 0.29
Casement	AW-PG70	70.18	0.01	12.11	0.17 - 0.28	0.19 - 0.29
Casement Push-Out	AW-100	70.18	0.01	12.11	0.17 - 0.28	0.19 - 0.29
Direct Set	AW-PG100	100	0.01	12.11	0.14 - 0.28	0.34 - 0.36

# CityLine C-Series Sliding Doors Size & Performance

- Architectural Grade Aluminum Frame
  - 4-9/16" and 6-9/16" Jamb Depths
  - 4-1/2" Overall Sight Line including Frame
  - 3-3/8" Sight Lines Narrow Panel
- Patented SolidCore<sup>™</sup> Thermal Barrier in Doors
- Corner Key Technology for Maximum Structural Performance
- Stainless Steel Quad and Tandem Precision Bearing Roller Systems
- Butt Joint Panels & Extruded Fin
- Internal or Simulated Divided Light (SDLs) Grids Available
- High-Performance 2604 and 2605 Powder Finishes
- Optional Exterior and Interior (Two-Tone) Color Options
- Custom Color Matching and Heat Reflective Paint Options

Series (	Options
C200S	Sliding



Sliding Door Performance				
Operation / Style	Structural U-Value Rating Range			
Two Panel	R-50 / LC-50 0.26 - 0.31			
Four Panel	R-50 / LC-50 0.26 - 0.3			
SDL Depth (Max Profile Height)				
Exterior	7/16"			
Interior	9/16"			

Sliding Door Sizing (C200S)					
Operational Style	Width		Height		Max UI
	Min	Max	Min	Max	IVIAX OI
Two Panel	60"	168"	78"	144"	264"
Four Panel	120"	240"	78"	144"	408"
Sidelight - Narrow	15"	108"	15"	143-7/8"	191"
Sidelight - Fixed Panel Set	15"	108"	15"	143-7/8"	191"
Transom	12"	120"	12"	108"	191"





# CityLine C-Series Swing Doors Size & Performance

- Architectural Grade Aluminum Frame
  - 4-9/16" and 6-9/16" Jamb Depths
  - 4-1/2" Overall Sight Line including Frame
  - 3-3/8" Sight Lines Narrow Panel
- Patented SolidCore<sup>™</sup> Thermal Barrier in Doors
- Corner Key Technology for Maximum Structural Performance
- Available as Inswing (C200I) or Outswing (C200O)
- Adjustable Butt Hinges offer Multi-Directional Adjustment
- Standard, ADA, or No Sill Options
- **Butt Joint Panels & Extruded Fin**
- Wide and Narrow Panel Options
- Internal or Simulated Divided Light (SDLs) Grids Available
- High-Performance 2604 and 2605 Powder Finishes
- Optional Exterior and Interior (Two-Tone) Color Options
- **Custom Color Matching and Heat Reflective Paint Options**

Swing Door Performance					
Operation / Style	Structural Rating	U-Value Range			
Single Panel	R-50 / LC-50	0.27 - 0.31			
Two Panel - French	R-50 / LC-50	0.27 - 0.31			
SDL Depth (Max Profile Height)					
Exterior	7/16"				
Interior	9/16"				

Series Options		
C200I	Inswing	
C200O	Outswing	



Swing Door Sizing (C200I / C200O)					
On anational Stude	Width		Height		May III
Operational Style	Min	Max	Min	Max	Max UI
Single Panel	24"	48"	78"	144"	180"
Two Panel - French	48"	96"	78"	144"	216"
Sidelight - Narrow	15"	108"	15"	143-7/8"	191"
Sidelight - Fixed Panel Set	15"	108"	15"	143-7/8"	191"
Transom	12"	120"	12"	108"	191"





# CityLine M-Series Multislide Doors Size & Performance

- Architectural Grade Aluminum Frame
  - 3" Sight Lines Vertical Stile
  - 4" Sight Line Vertical Stile with Frame
  - 4-1/2" Sight Line Bottom Rail
  - 5-1/8" Overall Sight Line including Sill
- Thermally Broken Aluminum Frame and Panels
- Azon<sup>™</sup> Polyurethane Thermal Barrier in Frame
- Patented SolidCore<sup>™</sup> Thermal Barrier in Doors
- Corner Key Frame Technology for Maximum Structure Performance
- Butt Joint Panels
- Stainless Steel Quad Precision Bearing Roller System
- · Removable / Replaceable Sill
- Integrated Sill Pan acts as a Starter Strip
- Integral Extruded Nail Fin (Optional)
- High-Performance 2604 and 2605 Powder Finishes
- Custom Color Matching and Heat Reflective Paint Options

Grid Options				
Exterior Grid Max Height	Interior Grid Max Height			
1/8"	1/8"			

Performance		
Structural	Thermal	
R - 15	0.34 - 0.39	

Sill Options
Standard - 1-3/8" (M2055)
1" Flush Sill (No Leg) (M2065)
Flush (Staggered) Sill Flooring (M2075)

Sizing					
Operation	Width		Height		- Max UI
	Min	Max	Min	Max	Max OI
Panel	24"	84"	34"	144"	204"



Panel Configurations						
2 Panel	3 Panel	4 Panel	5 Panel	6 Panel		
One Direction Pocketing	One Direction Pocketing	One Direction Pocketing Bi-Parting	One Direction Pocketing	One Direction Pocketing Bi-Parting		

# **Glazing Packages Options**

Glazing Package Options						
Glazing Package	U-Value	SHGC	VT	CR		
Energy Enhanced	Lower	Lower	Lower	High		
Energy North	Lower	Moderate	Highest	High		
Energy Basic	Moderate	Low	Higher	Highest		
Energy Plus	Lowest	Low	Higher	Higher		
Energy 3S	Low	Lower	Moderate	Highest		
Energy Max	Lower	Lower	Moderate	Higher		
Energy 4S	Low	Lowest	Moderate	Highest		
Energy 4S+	Lower	Lowest	Moderate	Higher		
Triple Pane	Lowest	Lowest	High	Higher		

- **U-Value:** Represents the heat flow through a window and is measured in BTU/hr-ft². The lower the rating the better the reduction in heat loss.
- **Solar Heat Gain (SHGC):** Used to measure the amount of radiated heat entering a building. The lower the rating, the better the glazing package in preventing solar gain.
- Visible Transmittance (VT): Measures the amount of visible light transmitted through a window.
- Condensation Resistance (CR): Measures how well a window resists condensation on its interior surface. The higher the rating, the better the glazing package is able to resist condensation.

# **Comparative Glazing Packages**

Comparative Glazing Packages	STC	OITC	
Single Pane Window	20	19	
1" (25.5 mm) 2-Pane IG Casement	32	28	
1" (25.5 mm) 2-Pane Laminated IG Casement	35	31	
1.375" (34.6 mm) 3-Pane Laminated IG Casement	38	33	
Other Glass Configurations Available Upon Request			

- STC (Sound Transmission Class): Used to calculate the results of soundproofing between rooms or through walls. It is a measurement of decibel reduction. The STC Frequency Scale ranges from 125 Hz to 4000 Hz. The higher the number, the better the product in dampening ambient sound.
- OITC (Outside Inside Transmission Class): This rates the transfer of sound between an outdoor space and an indoor space. OITC has a frequency scale between 80 Hz and 4000 Hz and is used when calculating sound controls against low frequency exterior sounds. The higher the number, the better the product is in dampening sound.





## The Innovative Difference

A natural blending of proprietary technologies have formed the base properties that make up CityLine Door Systems.

From the Azon® Polyurethane Foam to Azo-Brading and the addition of SolidCore™ infused panels, CityLine Doors have been built to maximize Structural and Thermal Performance while maintaining the torsion, deflection and sheer strength properties garnered towards industry tested AW-rated commercial products.



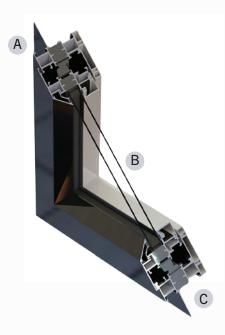
Unique to the market, Quaker's patented SolidCore<sup>™</sup>
Thermal Barrier System integrates an Azo-Core high-density foam that acts as an insulator against the natural conductivity of heat and cold, allowing for superior energy performance and product integrity regardless of size or operational style.



## **Effortless Performance**

Engineered for the extremes, CityLine Windows were designed with comfort in mind. From the cold winds of the Northeast seaboard to the heat of the Southwest deserts, CityLine defines the standards on how modern day performance is measured.

Offered with a series of energy-enhanced glass packages, each window and door has been equipped for year-round maintenance-free versatility, a unique quality found within the Quartz Luxury Portfolio.



A. Azo-Core Thermal Barrier System with MLP™ technology utilizes a polyurethane foam that has been designed to create greater thermal performance throughout your entire home.

- B. Cardinal Neat+ Glass is constructed to naturally decompose greenhouse pollutants and stay cleaner longer.
- C. Glass units incorporate Super Spacer, a superior condensation reducing seal that optimizes home energy efficiencies.







# **Technology to the Core**

Originally designed for modern commercial construction applications, CityLine Windows offer the unique blending of advanced architectural design intertwined with a stylized flair.

Infusing OptiCore®, a proprietary patented technology,
Quaker has formed an engineering base that offers superior
Structural, Thermal and Sound Performance,
pushing the envelope of spatial design and shaping the
future of contemporary home construction.





- A. Architecturally-enhanced 4-1/4" aluminum frame offers greater structural strength and superior performance.
- B. Sealant-Injected double corner key construction offers improved Structural Integrity across the entire window frame regardless of size or shape.
- C. 2-7/8" sight lines with straight or beveled glazing stops offer larger openings and wider views.

## Solids, Textures and Resembles Metallics

#### **Natural Tones**

A blending of stepped contrasts and subtle shades.



#### **Monotones**

Illuminating the neutral spectrum of color saturation and hue.



#### **Resembles Metallics**

Moss Green New Dark Bronze

A modern and consistent interpretation of anodized finishes.



All CityLine products can be finished with different colors inside and out, in addition to custom color matching capabilities.

#### **Historic Shades**

Deepened colors that draw from classic designs.



#### **Textures**

Mixed to create visual depth and dimension on window and door surfaces.



Textured
Dark Bronze
Heat Reflective

## **Hardware Colors and Finishes**

Endearing colors, chosen to enhance and frame our thoughts and visions.

#### CityLine Hardware

Available Hardware colors across the CityLine Product Line.

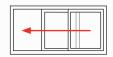




# **CityLine Door Configurations**

## Sliding

Constructed using both a fixed and operating door panel that slides inside a framed track.



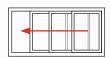
## **Swing**

Available in inswing or outswing. Door is hinged and pivots from the side.



#### Multislide

This system utilizes multiple panels that slide and stack to one side of the door frame.



# **CityLine Window Configurations**

## **Picture**

A fixed-pane window that is available in nearly any shape or size.



## Casement

Swinging outward, this window pivots from the side. Available with Roto or Push-Out hardware.



## **Awning**

A window that pivots from the top and swings open at the bottom.



#### Corner

A uniquely designed picture window that angles back at 90° to wrap around a home's corner.







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To learn more about Quartz Luxury Windows and Doors by Quaker, please scan here:

