HIGH PERFORMANCE ALUMINUM WINDOWS & DOORS



WINDOWS & DOORS

WINDOW & DOOR PRODUCTS WE OFFER

WINDOWS

FIXED TILT & TURN CASEMENT AWNING BILFOD SLIDING

DOORS

SWING PASK BIFOLD SLIDING

11 ADVANTAGES OF OUR ALUMINUM WINDOWS AND DOORS

Strength aluminum alloy is lightweight yet extremely durable

Plasticity aluminum can be extruded into almost any shape

Accuracy aluminum can be shaped into extremely tight tolerances

Weather Resistant aluminum has excellent tolerance against solar radiation, ultraviolet radiation and can withstand extremely high and low temperature variances

Impact Resistant | aluminum alloys absorb impact into a small deformation zone

Versatile aluminum alloys can be coated with a variety of textures and colour

Eco-Friendly aluminum is recyclable leading to less waste in the recycling stream 💦

Energy Efficient aluminum alloy applied with PA66 material allows for multiple grades of energy saving window and door configurations

Cost-effective aluminum windows and doors occupy 75% of the world market making the manufacturing costs lower than other window materials

Appearance aluminum alloy windows and doors compliment virtually any exterior type on residential and commercial applications

Maintenance-Free each exterior and interior finish use a durable, maintenance-free powdercoated colour or texture. This means there is no fading, peeling, or chipping, resulting in little to no maintenance.



ZERO MAINTENANCE. ENERGY CREATION POWDER-COATED WINDOWS AND DOORS.

FIXED WINDOW



ENERGY CREATIONS OFFERS THE LARGEST SIZES AVAILABLE

FIXED WINDOW FEATURES

GLASS

5 mm triple pane tempered glass with available advanced security film Low E / Argon in-fill and dry glazing

SPACER

Warm edge spacer available in black or silver with molecular sieve drying agent

SEAL

5 mm x 10 mm Ext/Int. glazing cap seals 50-year longevity exposed to the elements

FRAME

Nylon thermal break Powder coated colors as standard Insulated

SIMULATED DIVIDED LITES (SDL)

Interior or exterior profile available



INTERNAL GLAZING Internally glazed windows provide good-looks and a slim profile while providing excellent security.

POWDER COATED COLOUR

| Brown | |
|-------|--|

| 21001 | |
|-------|--|

Silve





5 standard palette colours: Brown, Black, Silver, White and Grey or choose from over 100 custom colour or wood texture combinations. See page 31 for details.

Oak



TILT & TURN WINDOW



BEST OF BOTH WORLDS - CASEMENT AND AWNING IN ONE WINDOW

TILT & TURN WINDOW FEATURES

GLASS

5 mm triple pane tempered glass with available advanced security film Low E / Argon in-fill and dry glazing

SPACER

Warm edge spacer available in black or silver with molecular sieve drying agent

SEAL

34 mm x 22 mm primary EPDM* seal 2 - 6 mm x 5 mm secondary EPDM* seals 5 mm x 10 mm Ext/Int. glazing cap seals 50-year longevity exposed to the elements

*EPDM is a synthetic rubber compound with an operating temperature +150°C to -50°C and a 40+ year lifespan.

FRAME

Nylon thermal break Powder coated colors as standard Insulated

HARDWARE

Tilt & Turn operation provides dual function of inward venting and door opening window

SIMULATED DIVIDED LITES (SDL)

Interior or exterior profile available

MULTI-POINT LOCKS

Heavy-duty hardware with multiple locking points provide security and sealing against the elements.



MULTI-POINT LOCKS 4 locking points provide excellent security and sealing against the elements.

POWDER COATED COLOUR

| _ | | | |
|-----------|------|---|--|
| \square | | ~ | |



Black

Silver





5 standard palette colours: Brown, Black, Silver, White and Grey or choose from over 100 custom colour or wood texture combinations. See page 31 for details.

Oak

ADDITIONAL OPTIONS

Hidden Hinge Friction Hinge Built-in Blinds Hidden Retractable Screens



INTERNAL OPENING

Window opens to the inside which allows for ease of cleaning.



MAGNETIC WINDOW SCREENS

Use magnets to firmly seal the screen to the window.

CASEMENT WINDOW



CASEMENT WINDOW FEATURES

GLASS

5 mm triple pane tempered glass with available advanced security film Low E / Argon in-fill and dry glazing

SPACER

Warm edge spacer available in black or silver with molecular sieve drying agent.

SEAL

34 mm x 22 mm primary EPDM* seal 2 - 6 mm x 5 mm secondary EPDM* seals 5 mm x 10 mm Ext/Int. glazing cap seals 50-year longevity exposed to the elements

*EPDM is a synthetic rubber compound with an operating temperature +150°C to -50°C and a 40+ year lifespan.

FRAME

Nylon thermal break Powder coated colors as standard Insulated

HARDWARE

Outward casement opening, robust handle

SIMULATED DIVIDED LITES (SDL)

Interior or exterior profile available

MULTI-POINT LOCKS

Heavy-duty hardware with multiple locking points provide security and sealing against the elements



RESTRICTOR HINGE Designed for security by only allowing the window to be partially open, while still providing adequate ventilation. Sash can only be opened from the interior.

POWDER COATED COLOUR

| Durauura | |
|----------|--|



Silver





5 standard palette colours: Brown, Black, Silver, White and Grey or choose from over 100 custom colour or wood texture combinations. See page 31 for details.

Oak

ADDITIONAL OPTIONS

Hidden Hinge Internal Glazing Hidden Retractable Screens





HIDDEN RETRACTABLE SCREENS

Easy to operate window screens maximize natural light and save room for screen storage when not in use.

AWNING WINDOW



AWNING WINDOW FEATURES

GLASS

5 mm triple pane tempered glass with available advanced security film Low E / Argon in-fill and dry glazing

SPACER

Warm edge spacer available in black or silver with molecular sieve drying agent

SEAL

34 mm x 22 mm primary EPDM* seal 2 - 6 mm x 5 mm secondary EPDM* seals 5 mm x 10 mm Ext/Int. glazing cap seals 50-year longevity exposed to the elements

*EPDM is a synthetic rubber compound with an operating temperature +150°C to -50°C and a 40+ year lifespan.

FRAME

Nylon thermal break Powder coated colors as standard Insulated

SIMULATED DIVIDED LITES (SDL)

Interior or exterior profile available

MULTI-POINT LOCKS

Heavy-duty hardware with multiple locking points provide security and sealing against the elements



INTERNAL GLAZING Internally glazed windows provide good-looks and a slim profile while providing excellent security.

POWDER COATED COLOUR

| Brown | |
|-------|--|



Silver





5 standard palette colours: Brown, Black, Silver, White and Grey or choose from over 100 custom colour or wood texture combinations. See page 31 for details.

Oak

ADDITIONAL OPTIONS

Magnetic Window Screens Hidden Retractable Screens



CHAIN-DRIVE CRANK HANDLE

Simple operation allows for ease of motion and less maintenance due to fewer moving parts.



HARDWARE

Robust hardware allows for large sizes.

SLIDING WINDOW



SLIDING WINDOW FEATURES

GLASS

6 mm dual pane tempered glass with available advanced security film Low E / Argon in-fill and dry glazing

SPACER

Warm edge spacer available in black or silver with molecular sieve drying agent

SEAL

34 mm x 22 mm primary EPDM* seal 2 - 6 mm x 5 mm secondary EPDM* seals 5 mm x 10 mm Ext/Int. glazing cap seals 50-year longevity exposed to the elements

*EPDM is a synthetic rubber compound with an operating temperature +150°C to -50°C and a 40+ year lifespan.

FRAME

Nylon thermal break Powder coated colors as standard Insulated

SIMULATED DIVIDED LITES (SDL)

Interior or exterior profile available



INTERNAL GLAZING Internally glazed windows provide good-looks and a slim profile while providing excellent security.

POWDER COATED COLOUR

| В | Brown | |
|---|-------|--|



Silver



Grey



5 standard palette colours: Brown, Black, Silver, White and Grey or choose from over 100 custom colour or wood texture combinations. See page 31 for details.

Oak

ADDITIONAL OPTIONS

Magnetic Window Screens Hidden Retractable Screens



SMOOTH OPERATION

Well engineered hardware makes heavy window sash easy to operate.

BIFOLD SLIDING DOOR + WINDOW



BIFOLD - AVAILABLE UP TO 8 FEET HIGH AND 30 FEET WIDE

BIFOLD SLIDING DOOR + WINDOW FEATURES

GLASS

5 mm triple pane tempered glass with available advanced security film Low E / Argon in-fill and dry glazing

SPACER

Warm edge spacer available in black or silver with molecular sieve drying agent

SEAL

24 mm x 10 mm primary EPDM* seal 2 - 6 mm x 5 mm secondary EPDM* seals 5 mm x 10 mm Ext/Int. glazing cap seals 50-year longevity exposed to the elements

*EPDM is a synthetic rubber compound with an operating temperature +150°C to -50°C and a 40+ year lifespan.

FRAME

Nylon thermal break Powder coated colors as standard Insulated

HARDWARE

Standard Roto



BIFOLD OPERATION Bi-fold doors allow the expanse of the unit to be fully opened for an uninterrupted view of the outside.

POWDER COATED COLOUR

| _ | |
|-------|--|
| Brown | |

Black

Silver





5 standard palette colours: Brown, Black, Silver, White and Grey or choose from over 100 custom colour or wood texture combinations. See page 31 for details.

Oak

ADDITIONAL OPTIONS

Hidden Retractable Screens

SIMULATED DIVIDED LITES (SDL)

Interior or exterior profile available

MULTI-POINT LOCKS

Heavy-duty hardware with multiple locking points provide security and sealing against the elements



BIFOLD WINDOW - AVAILABLE UP TO 8 FEET HIGH AND 30 FEET WIDE

SUPERIOR STRUCTURAL INTEGRITY AND WEATHER SEAL



SINGLE + DOUBLE SWING DOOR





SWING DOOR - UP TO 12 FOOT HEIGHT AVAILABLE

SWING DOOR FEATURES

GLASS

5 mm triple pane tempered glass with available advanced security film Low E / Argon in-fill and dry glazing

SPACER

Warm edge spacer available in black or silver with molecular sieve drying agent

SEAL

34 mm x 22 mm primary EPDM* seal 2 - 6 mm x 5 mm secondary EPDM* seals 5 mm x 10 mm Ext/Int. glazing cap seals 50-year longevity exposed to the elements

*EPDM is a synthetic rubber compound with an operating temperature +150°C to -50°C and a 40+ year lifespan.

FRAME

Nylon thermal break Powder coated colors as standard Insulated

HARDWARE

Available Tilt & Turn operation provides dual function of inward venting and door opening window



MULTI-POINT LOCKS 4 locking points provide excellent security and sealing against the elements.

POWDER COATED COLOUR



Black

Silver



Grey



5 standard palette colours: Brown, Black, Silver, White and Grey or choose from over 100 custom colour or wood texture combinations. See page 31 for details.

Oak

ADDITIONAL OPTIONS

Magnetic Window Screens

SIMULATED DIVIDED LITES (SDL)

Interior or exterior profile available

MULTI-POINT LOCKS

Standard heavy-duty hardware with multiple locking points provide security and sealing against the elements



SMOOTH OPERATION

Well engineered hardware makes heavy window sash easy to operate.

SLIDING DOOR



LIFT & SLIDE - LARGE OPENINGS OF UP TO 15 FEET AVAILABLE

SLIDING DOOR FEATURES

GLASS

6 mm dual pane tempered glass with available advanced security film Low E / Argon in-fill and dry glazing

SPACER

Warm edge spacer available in black or silver with molecular sieve drying agent

SEAL

5 mm x 10 mm Ext/Int. glazing cap seals 50-year longevity exposed to the elements

FRAME

Nylon thermal break Powder coated colors as standard Insulated

HARDWARE

Lift-slide mechanical system





SLIDING DOOR MULTI-OPEN OPTIONS

The sliding door features a lift-slide mechanical system which allows the door to easily open by lifting the door up from the track while rotating the handle.

POWDER COATED COLOUR



Silver





Grey



5 standard palette colours: Brown, Black, Silver, White and Grey or choose from over 100 custom colour or wood texture combinations. See page 31 for details.

Oak

ADDITIONAL OPTIONS

Magnetic Window Screens Hidden Retractable Screens

SIMULATED DIVIDED LITES (SDL)

Interior or exterior profile available

PASK DOOR



8 POINT LOCKING SYSTEM - SEALS THE DOOR BETTER THAN A TRADITIONAL SLIDING DOOR

PASK DOOR FEATURES

GLASS

5 mm triple pane tempered glass with available advanced security film Low E / Argon in-fill and dry glazing

SPACER

Warm edge spacer available in black or silver with molecular sieve drying agent

SEAL

34 mm x 22 mm primary EPDM seal 6 mm x 5 mm secondary EPDM seals 5 mm x 10 mm Ext/Int. glazing cap seals 50-year longevity

SIMULATED DIVIDED LITES (SDL)

Interior or Exterior profile available

MULTI-POINT LOCKS

Heavy-duty hardware with 8 locking points provide security and sealing against the elements



MULTI-POINT LOCKS 8 locking points provide excellent security and sealing against the elements.

POWDER COATED COLOUR

| Due | |
|-----|--|



Silver



Grey



5 standard palette colours: Brown, Black, Silver, White and Grey or choose from over 100 custom colour or wood texture combinations. See page 31 for details.

Oak

ADDITIONAL OPTIONS

Sliding Screens



BUILT-IN BLINDS

Blinds are located in between the panes of glass so that they never need cleaning.



HIDDEN RETRACTABLE SCREENS

Easy to operate window screens maximize natural light and save room for screen storage when not in use.

WINDOW TECHNICAL SPECIFICATIONS

ANSI/NFRC 100-2017, NFRC 500/2017

| | TILT & TURN | CASEMENT | FIXED | AWNING |
|---------------|------------------------------|------------------------------|------------------------------|------------------------------|
| Whole Unit | | · | | |
| U-Factor | 0.22 imperial 1.25 metric | O.26 imperial 1.48 metric | 0.19 imperial 1.08 metric | 0.26 imperial 1.48 metric |
| SGHC | 0.39 / 0.35 / 0.31 | 0.32 / 0.29 / 0.26 | 0.44 / 0.40 / 0.36 | 0.32 / 0.29 / 0.26 |
| VT | 0.49 / 0.44 / 0.38 | 0.40 / 0.36 / 0.32 | 0.40 / 0.36 / 0.32 | 0.40 / 0.36 / 0.32 |
| CR | 66 | 66 | 66 | 66 |
| (C-O-G) Cente | er of Glazing | | | |
| U-Factor | 0.14 imperial 0.77 metric | 0.14 imperial 0.77 metric | 0.14 imperial 0.77 metric | 0.14 imperial 0.77 metric |
| SGHC | 0.39 / 0.35 / 0.31 | 0.32 / 0.29 / 0.26 | 0.44 / 0.40 / 0.36 | 0.32 / 0.29 / 0.26 |
| VT | 0.49 / 0.44 / 0.38 | 0.40 / 0.36 / 0.32 | 0.56 / 0.50 / 0.45 | 0.40 / 0.36 / 0.32 |
| CR | 66 | 66 | 66 | 66 |

(SGHC) Solar Heat Gain Coefficient

(VT) Visible Transmittance

(CR) Condensation Rate

AAMA/WDMA/CSA 101/I.S.2/A440-11 (NAFS 2011 - North American Fenestration Standard / Specification for Windows, Doors and Skylights) and A44OS1-17

FIXED

| Test Description | Requirements | | Result | Verdict |
|--|---|--|--|---------|
| Air Leakage Resistance | Maximum air leakage at +75 Pa O.2 L/s-m² | 0.05 L/s-m ² | Air leakage at +75 Pa | PASS |
| Canadian Air Infiltration/ Exfiltration Level: CW | Maximum air leakage at -75 Pa O.2 L/s-m² | 0.01 L/s-m ² | Air leakage at -75 Pa | PASS |
| Water Penetration Resistance | Minimum Water Pressure 220 Pa (4.59 psf) | Test Pressure 720 Pa (15.04 psf) | No water penetration at 720 Pa (15.04 psf) | PASS |
| Uniform Load Deflection | Minimum Design Pressure (DP) 1440 Pa (30.08 psf) | Design Pressure 1440 Pa (30.08 psf) | Maximum Deflection at frame 0.1 mm | PASS |
| Uniform Load Structural | Minimum Structural Pressure (DP) 2160 Pa (45.11 psf) | Structural Pressure 2160 Pa (45.11 psf) | Maximum permanent deformation at frame <0.1 mm | PASS |
| Forced-entry Resistance | Minimum Grade 10 | Test Class Grade 10 | No damage, no permanent deformation | PASS |

WINDOW TECHNICAL SPECIFICATIONS

AAMA/WDMA/CSA 101/I.S.2/A44O-11 (NAFS 2011 - North American Fenestration Standard / Specification for Windows, Doors and Skylights) and A44OS1-17

TILT & TURN

| Test Description | Requirements | | Result | Verdict |
|--|--|---|---|---------|
| Operating Test Force | Maximum force to initial movement 155 N | | 10 N | PASS |
| Canadian requirements | Maximum force to maintain movement 135 N | | 1 N | PASS |
| Air Leakage Resistance | Maximum air leakage at +75 Pa O.5 L/s-m² | O.10 L/s-m ² | Air leakage at +75 Pa | PASS |
| Canadian Air Infiltration/ Exfiltration Level: CW | Maximum air leakage at -75 Pa O.5 L/s-m² | 0.09 L/s-m ² | Air leakage at -75 Pa | PASS |
| Water Penetration Resistance | Minimum Water Pressure 220 Pa (4.59 psf) | Test Pressure 290 Pa (6.06 psf) | PASS | PASS |
| Uniform Load Deflection | Minimum Design Pressure (DP) 1440 Pa (30.08 psf) | Design Pressure 2160 Pa (45.11 psf) | Maximum deflection at toprail 0.9 mm | PASS |
| | | Design Pressure 2160 Pa (45.11 psf) | Maximum deflection at lockstile 2.3 mm | PASS |
| Uniform Load Structural | Minimum Structural Pressure (DP) 2160 Pa (45.11 psf) | Structural Pressure 3240 Pa (67.67 psf) | Maximum permanent deformation at toprail O.2 mm | PASS |
| | | Structural Pressure 3240 Pa (67.67 psf) | Maximum deflection at lockstile O.3 mm | PASS |
| Sash/Leaf Concentrated Load Test on Latch Rail | Perpendicular load: The deflection under 135 N (30.35 lbf) shall not exceed 1.5 mm | | Average 0.45 mm | PASS |
| | Parallel load: The deflection under 235 N (51.71 lbf) shall not exceed 3.3 mm | | Average 0.83 mm | PASS |
| Stabilizing Arm Load | Apply load vertically to sash corner: 890 N (200.08 lbf) | After load removal, there was no damage to the window, the window was still operable. | | PASS |
| | Apply load vertically to sash top rail at center: 1780 N (400.16 lbf) | After load removal, there was no damage to the window, the window was still operable. | | PASS |
| Forced-entry Resistance | Minimum Grade 10 | Test Class Grade 10 | No damage, no permanent deformation, the window was still operable. | PASS |





AAMA/WDMA/CSA 101/I.S.2/A440-11 (NAFS 2011 - North American Fenestration Standard / Specification for Windows, Doors and Skylights) and A440S1-17

AWNING

| Test Description | Requirements | | Result | Verdict |
|--|--|--|--|---------|
| Operating Test Force | Maximum force to initial movement 155 N | | 10 N | PASS |
| Canadian requirements | Maximum force to maintain movement 135 N | | 1 N | PASS |
| Air Leakage Resistance | Maximum air leakage at +75 Pa O.5 L/s-m² | 0.04 L/s-m ² | Air leakage at +75 Pa | PASS |
| Canadian Air Infiltration/ Exfiltration Level: CW | Maximum air leakage at -75 Pa O.5 L/s-m² | O.12 L/s-m ² | Air leakage at -75 Pa | PASS |
| Water Penetration Resistance | Minimum Water Pressure 220 Pa (4.59 psf) | Test Pressure 720 Pa (15.04 psf) | No water penetration at 720 Pa (15.04 psf) | PASS |
| Uniform Load Deflection | Minimum Design Pressure (DP) 1440 Pa (30.08 psf) | Design Pressure 2160 Pa (45.11 psf) | Maximum deflection at stile 0.2 mm | PASS |
| | | Design Pressure 2160 Pa (45.11 psf) | Maximum deflection at bottom rail 0.4 mm | PASS |
| Uniform Load Structural | Minimum Structural Pressure (DP) 2160 Pa (45.11 psf) | Structural Pressure 3240 Pa (67.67 psf) | Maximum permanent deformation at stile O.1 mm | PASS |
| | | Structural Pressure 3240 Pa (67.67 psf) | Maximum deflection at bottom rail <0.1 mm | PASS |
| Awning, Hopper, Projected Hardware Load | The deflection under 140 N (31.43 lbf) shall not exceed 40.60 mm | | Deflection under 140 N (15mm) the window can properly close and operate | PASS |
| Forced-entry Resistance | Minimum Grade 10 | Test Class Grade 20 | No damage, no permanent deformation, the window was still operable. | PASS |



DOOR TECHNICAL SPECIFICATIONS

ANSI/NFRC 100-2017, NFRC 500/2017

| | EXTERIOR | SLIDING | SIDELIGHT | |
|---------------------------|------------------------------|-----------------------------|------------------------------|--|
| Whole Unit | | | | |
| U-Factor | 0.25 imperial 1.42 metric | 0.39 imperial 2.2 metric | 0.21 imperial 1.19 metric | |
| SGHC | 0.32 / 0.28 / 0.24 | 0.42 / 0.37 / 0.32 | 0.40 / 0.37 / 0.33 | |
| VT | 0.40 / 0.34 / 0.29 | 0.52 / 0.46 / 0.39 | 0.51 / 0.46 / 0.41 | |
| CR | 63 | 46 | 66 | |
| (C-O-G) Center of Glazing | | | | |
| U-Factor | 0.14 imperial 0.77 metric | 0.25 imperial 1.4 metric | 0.14 imperial 0.77 metric | |
| SGHC | 0.32 / 0.28 / 0.24 | 0.42 / 0.37 / 0.32 | 0.40 / 0.37 / 0.33 | |
| VT | 0.40 / 0.34 / 0.29 | 0.52 / 0.46 / 0.39 | 0.51 / 0.46 / 0.41 | |
| CR | 63 | 46 | 66 | |

(SGHC) Solar Heat Gain Coefficient (VT) Visible Transmittance

(CR) Condensation Rate

DOOR TECHNICAL SPECIFICATIONS

AAMA/WDMA/CSA 101?I.S.2/A44O-11 (NAFS 2011 - North American Fenestration Standard / Specification for Windows, Doors and Skylights) and A44OS1-17

| SLIDING | | | | |
|--|--|--|--|----------|
| Test Description | Requirements | | Result | Verdict |
| Operating Force | Maximum force to initial movement | 135 N | 19 N | PASS |
| Canadian requirements | Maximum force to maintain movement | 90 N | 8 N | PASS |
| Air Leakage Resistance | Maximum air leakage at +75 Pa 1.5 L/s-m² | Air leakage at +75 Pa | 1.09 L/s-m ² | PASS |
| Canadian Air Infiltration/ Exfiltration Level: R (operable) A2 | Maximum air leakage at -75 Pa 1.5 L/s-m² | Air leakage at -75 Pa | 0.99 L/s-m ² | PASS |
| Water Penetration Resistance | Minimum Water Pressure 140 Pa (2.92 psf) | Test Pressure 150 Pa (3.13 psf) | PASS | PASS |
| Uniform Load Deflection | Minimum Design Pressure (DP) 720 Pa (15.04 psf) | Design Pressure 1680 Pa (35.09 psf) | Maximum deflection at stile 3.0 mm | Reported |
| | | Design Pressure 1680 Pa (35.09 psf) | Maximum deflection at mullion 4.3 mm | PASS |
| Uniform Load Structural | Minimum Structural Pressure (STP) | Structural Pressure 1080 Pa (22.56 psf) | Maximum permanent deformation at stile O.1 mm | PASS |
| | | Structural Pressure 3240 Pa (67.67 psf) | Maximum deflection at mullion 0.1 mm | PASS |
| Deglazing | The load for deglazing 320 N (71.94 lbf) | | | PASS |
| Forced-entry Resistance | Minimum Grade 10 | Test Class Grade 20 | No damage, no permanent deformation, the door was still operable. | PASS |



DOOR TECHNICAL SPECIFICATIONS

AAMA/WDMA/CSA 101/I.S.2/A44O-11 (NAFS 2011 - North American Fenestration Standard / Specification for Windows, Doors and Skylights) and A44OS1-17

CASEMENT

| Test Description | Requirements | | Result | Verdict |
|---|---|--|---|----------|
| Operating Force | Force to latch | | 20 N | Reported |
| | Force to engage | | 28 N | Reported |
| Air Leakage Resistance | Maximum air leakage at +75 Pa 1.5 L/s-m² | Air leakage at +75 Pa | O.56 L/s-m² | PASS |
| Canadian Air Infiltration/ Exfiltration Level: LC (operable) A2 | Maximum air leakage at -75 Pa 1.5 L/s-m² | Air leakage at -75 Pa | O.57 L/s-m ² | PASS |
| Water Penetration Resistance | Minimum Water Pressure 180 Pa (3.76 psf) | Test Pressure 680 Pa (14.41 psf) | PASS | PASS |
| Uniform Load Deflection | Minimum Design Pressure (DP) 1220 Pa (25.06 psf) | Design Pressure 1680 Pa (35.09 psf) | Maximum deflection at lockstile 0.8 mm | PASS |
| | | Design Pressure 1680 Pa (35.09 psf) | Maximum deflection at bottom rail 0.3 mm | Reported |
| Uniform Load Structural | Minimum Structural Pressure (STP) 1800 Pa (37.59psf) | Structural Pressure 2520 Pa (52.63 psf) | Maximum permanent deformation at lockstile 0.1 mm | Reported |
| | | Structural Pressure 2520 Pa (52.63 psf) | Maximum deflection at bottom rail 0.1 mm | PASS |
| Operation Cycling Performance | Number of cycles: 100,000 | | No evidence of failure to the door slab construction | PASS |
| Forced-entry Resistance | Load of 135 kg (300 pb) to each location | | No damage, no permanent deformation, the door was still operable. | PASS |
| Vertical Loading | Applied load: 675 N (150 lbf) | | No damage | PASS |

CROSS SECTION

Aluminum frames are a high quality structurally stable material. The multiple EPDM rubber seals remain in excellent condition during extremely cold or hot weather. Energy Creation windows and doors use PA66 material which acts as a thermal break between the outside and inside temperatures, further enhancing the R-value of the window or door. Low-E coated tempered glass and argon infill is a standard feature, along with a Warm Edge Spacer with drying agent that eliminates the glass from getting foggy during temperature differences. The Dry Glazing technology makes replacing sealed units easy.



COLOUR OPTIONS

There are 5 standard powder coated colour finishes and our oak wood texture. We have over 100 customized colours and paint textures available. Standard colours can be mixed and matched, at no additional cost. Wood textures and other colours available at extra cost. Powder coating and anodizing last much longer than regular paint.



Brown











Grey

Wood



HIGH PERFORMANCE ALUMINUM WINDOWS & DOORS

THE BETTER SOLUTION.

