



2025 RESIDENTIAL PRODUCT GUIDE





TABLE OF CONTENTS

About Alpen	4
Alpen in Action	5
The Alpen Advantage	6
Zenith Series	10
Zenith Paint System	15
Window Design Options	15
Door Design Options	20
Tyrol Series	23
Window Design Options	30
Door Design Options	33
Glass	36
Alpen ThinGlass	37
Glass Options	38
NFRC Performance Data	40
Zenith Series	41
Tyrol Series	43

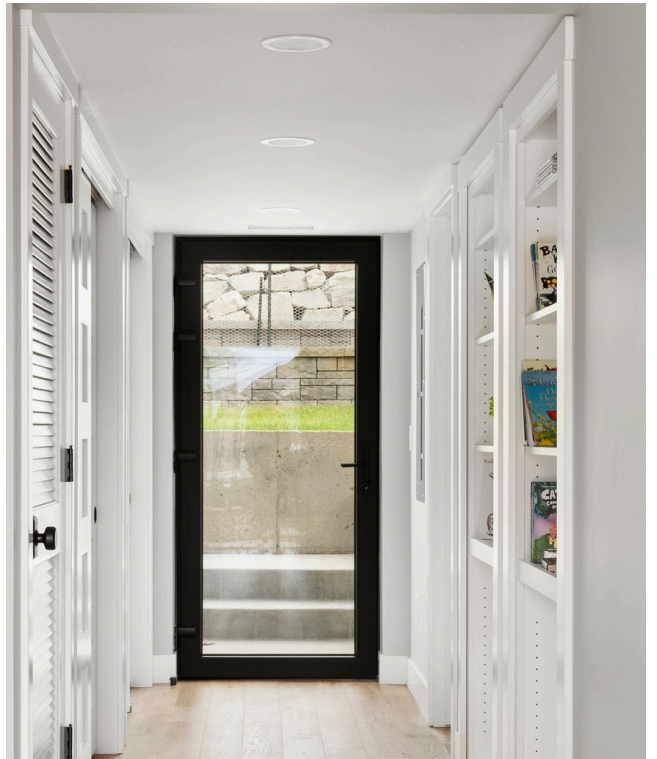


What seems revolutionary to some is core to our philosophy.
Buildings should be crafted to a much higher standard.

Alpen makes the #1 most efficient windows in North America. For almost fifty years, we have pursued a quest to dramatically transform the built environment in the U.S. by designing windows, doors and architectural glass that continue to raise the bar on performance for residential and commercial buildings. Central to our advancements is our proprietary thin-glass technology, co-developed with the Department of Energy—a pivotal innovation that's been proven across more than 1M+ square feet of installed windows.

In addition to elevating how we live and work indoors, we are actively meeting the challenge of our changing climate by using sustainable materials and best-in-class manufacturing methods that minimize the embodied carbon of our products.

Alpen delivers trusted performance, within reach (and without compromise) designed and built in the Rocky Mountains, USA.



ALPEN IN ACTION

Every Alpen purchase makes a meaningful contribution to reducing energy consumption.

From 2019 to 2024, Alpen windows saved **76,402,108 kBTUs** of energy compared to standard code-compliant windows. Over the 25-year lifespan of these windows, that adds up to a remarkable **572,747,931 kBTUs**, demonstrating the long-term impact of choosing high-performance windows and doors that contribute to a more sustainable future.

Here's a glimpse of what that energy savings looks like...

Drive to the Moon and Back

The energy saved could power a round trip to the moon 32 times. Over 25 years, it's enough for 315 lunar adventures.



Drive Around Earth

The equivalent of 618 trips around the Earth has been powered by Alpen windows. Over 25 years, that's 6,053 global journeys.



Retire Coal Rail Cars

The energy savings are equivalent to retiring 31 rail cars of coal. Over 25 years, that's 299 rail cars taken off the tracks.



Plant a Forest

Alpen windows have saved enough energy to plant 273,000 trees. Over 25 years, that impact grows to 2.7 million trees.



Shut Down a Power Plant

The energy saved could shut down a coal power plant for half a day. Over 25 years, that grows to nearly 5 days of halted operations.



Cover Skyscraper Footprints

Enough energy has been conserved to cover 2,378 skyscraper footprints with trees. In 25 years, 23,280 skyscrapers will be transformed into green space.



The Alpen Product Advantage

Customizable for
True Architectural
Freedom

Passive House
Compatible

Unparalleled
Performance
and Comfort

Superior Air and
Water Resistance

Long-Lasting
Durability

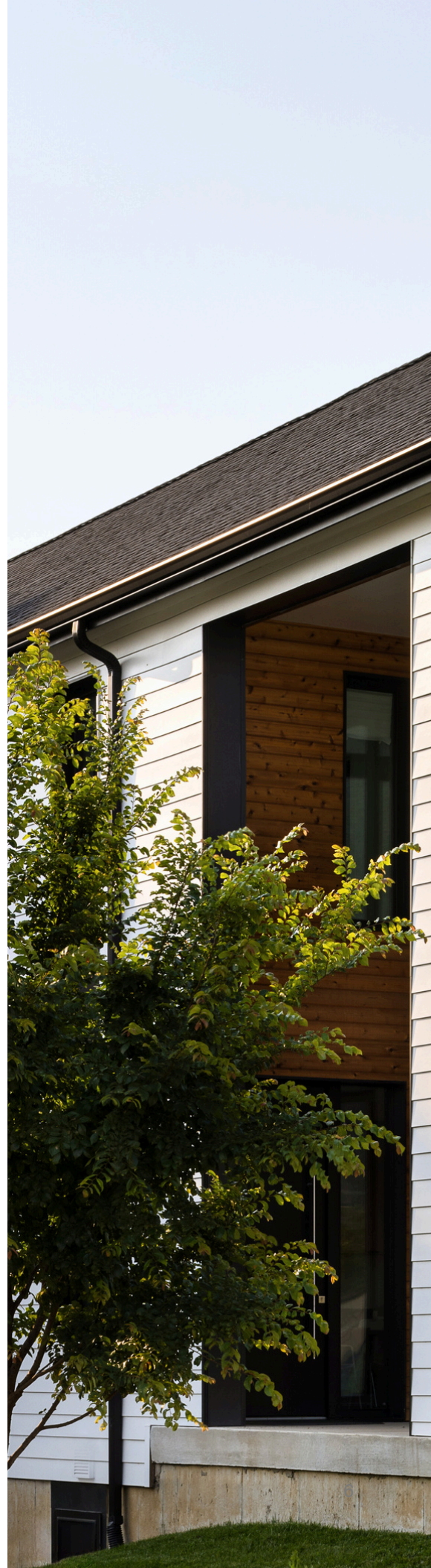
Low Embodied
Carbon

Healthy, Safe
Living Spaces

Built for All
Climates and
Conditions

Modern,
Beautiful Design

90% Soundproof
for Enhanced
Peace and Quiet



Beacon Hill Passive House in Kansas City, MO

Architect: Hoke Ley

Builder: Kala Performance Homes

Featuring Tyrol Windows







PRODUCTS

ZENITH SERIES

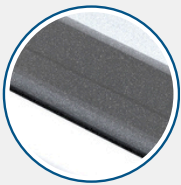


Fully Insulated, Premium
Fiberglass Frame

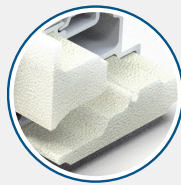
Industry Leading Triple and
Quad Pane ThinGlass

Whole Window NFRC
Certified up to R-10

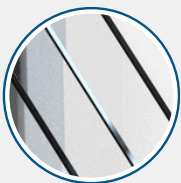
The Zenith Series combines the durability of fiberglass with favored outswing North American functionality to offer efficiency, comfort, and lasting craftsmanship. Our insulated glass technology boasts exceptional thermal performance and structural integrity. Designed to fit various sizes and styles, Zenith Series caters to diverse architectural needs while meeting or exceeding the latest standards for performance.



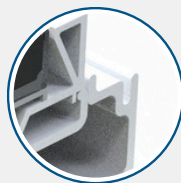
3D-printed thermoplastic spacer chemically bonds to glass, forming a durable, gas-tight seal with a 40+ year lifespan.



Super insulating closed-cell foam in frame and sash cavities for maximum thermal insulation and condensation resistance.



Triple and quad-pane AlpenGlass ensures unmatched energy efficiency and comfort in all climate zones.



Eco-friendly fiberglass expands and contracts like glass to reduce stress on seals. Durable, super-smooth premium color coating available in 16 shades.



Enjoy exceptional energy efficiency and year-round comfort.

Our stylish Zenith Series windows and doors are NFRC Certified.

NFRC Performance for Zenith Windows				
U-Factor	R-Value	SHGC	VT	CR
Down to 0.10	Up to R-10	0.15 - 0.53	0.34 - 0.65	Up to 83



NFRC Performance for Zenith Doors				
U-Factor	R-Value	SHGC	VT	CR
Down to 0.14	Up to R-7.1	0.15 - 0.52	0.34 - 0.52	Up to 73

Note: For full NFRC and other performance data, reference page 41

ZENITH'S BEST-IN-CLASS PAINT SYSTEM

Available for all Zenith window and door types

Unmatched Durability,
Design, and Performance

Our advanced paint offers superior durability and a modern color palette inspired by the Sherwin Williams Color Forecast, bringing both style and weather resistance to your windows and doors.

Precision Application and
Proven Performance

With a 6-step application process, our fiberglass paint is engineered to meet AAMA 623, 624, and 625 standards, delivering consistent quality trusted by industry professionals.

Sustainability Meets
Advanced Technology

Using a water-borne top coat, our proprietary process enhances paint adhesion and longevity, creating an eco-friendly, resilient finish designed to endure the toughest conditions.

Printed colors provide a general reference and are not an exact match to the final product. Order color samples on our website at www.thinkalpen.com.

Midnight Black
Classic Collection

Pure White
Classic Collection

Umber Bronze
Classic Collection

Bronze
Signature Collection

Alpine Ivory
Signature Collection

Sand Dune
Signature Collection

Boulder Grey
Signature Collection

Silver Mist
Signature Collection

Riverstone
Signature Collection

Bison Brown
Signature Collection

Red Canyon
Signature Collection

Pine
Signature Collection

Stormy Sky
Trend Collection

Verde Valley
Trend Collection

Deep Water
Trend Collection



Umber Bronze

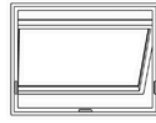
Verde Valley

Deep Water

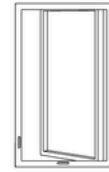




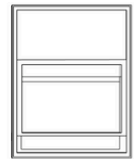
Fixed



Awning



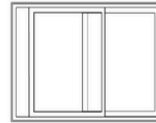
Casement



Single Hung



Double Hung

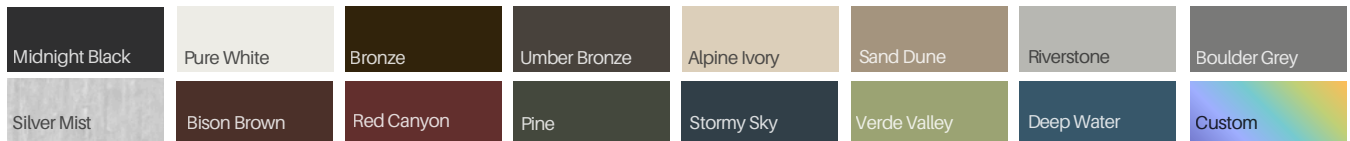


Horizontal Slider



Geometric

Radius

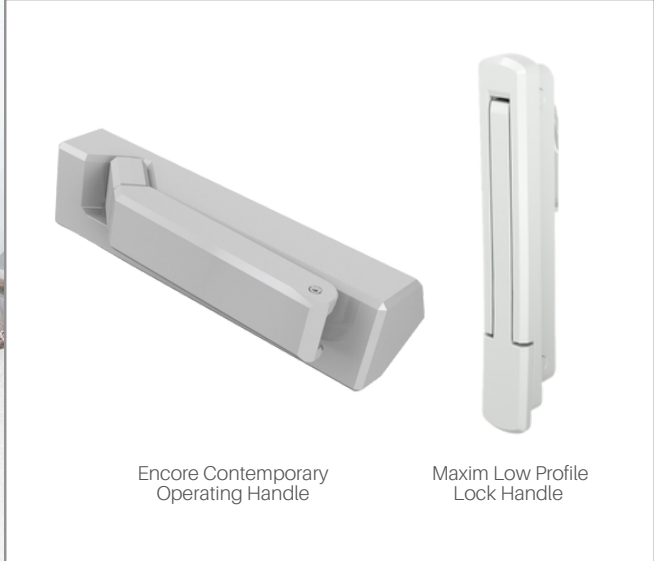


*Standard finish features a solid color on both sides. Two-tone split finishes are also available upon request.

**Printed colors provide a general reference and are not an exact match to the final product. Order color samples on our website at www.thinkalpen.com.



Fargo House in Louisville, CO



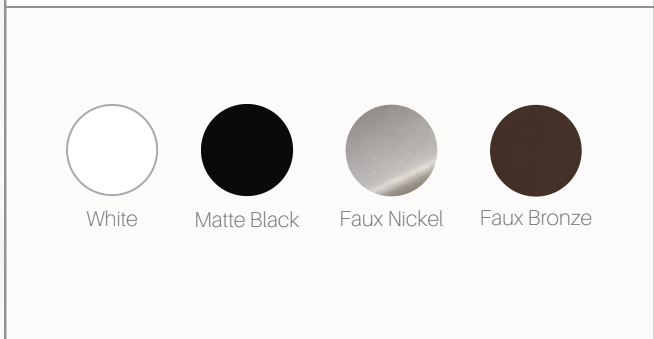
Encore Contemporary Operating Handle

Maxim Low Profile Lock Handle



Encore Tango Operating Handle

Maxim Lock Handle



White



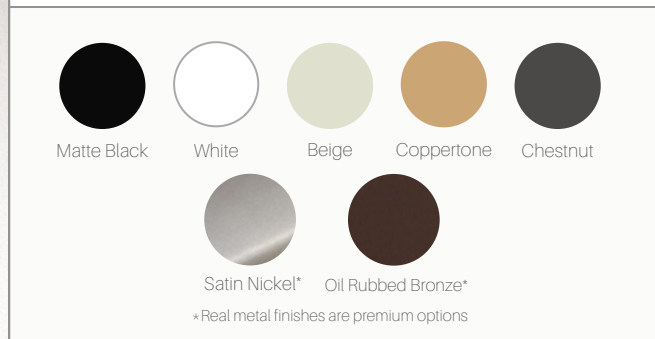
Matte Black



Faux Nickel



Faux Bronze



Matte Black



White



Beige



Coppertone



Chestnut



Satin Nickel*



Oil Rubbed Bronze*

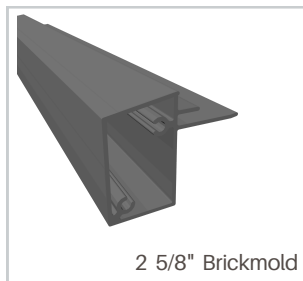
*Real metal finishes are premium options

Printed colors provide a general reference and are not an exact match to the final product. Order samples on our website at www.thinkalpen.com.

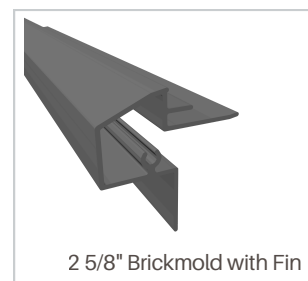


Brickmolds

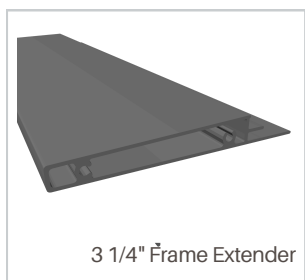
Add a clean, finished look to your windows and doors with our durable brickmolds. Designed for seamless installation, they enhance both protection and curb appeal.



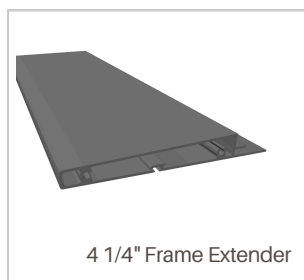
2 5/8" Brickmold



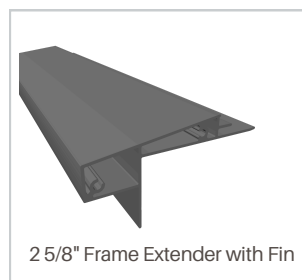
2 5/8" Brickmold with Fin



3 1/4" Frame Extender



4 1/4" Frame Extender



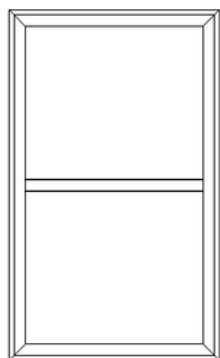
2 5/8" Frame Extender with Fin

Frame Extenders

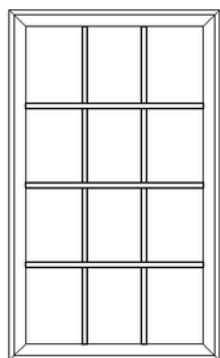
Easily bridge gaps between window frames and walls, while ensuring a clean look and precise fit.

Simulated Divided Lights

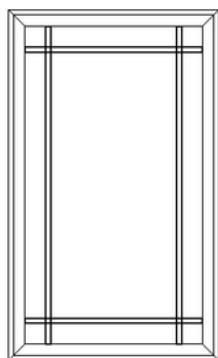
Enhance your windows with our simulated divided lights, combining classic charm with modern energy efficiency.



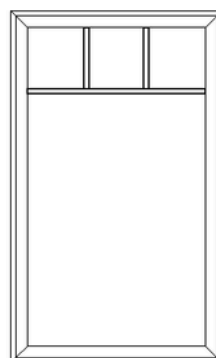
Faux Interlock



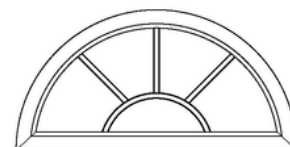
Colonial



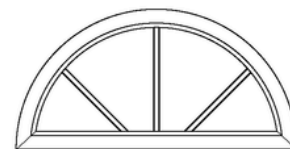
Prairie



Ladder



Sunburst



Spoke

Simulated Divided Lights are hand-cut, hand-painted, and hand-applied, with the option for custom patterns to suit your design needs.



Fargo House in Superior, CO

Designer: DAJ Designs

Builder: Buildwell

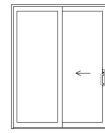




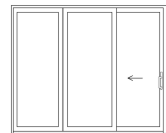
Our stunning Zenith Sliding Glass Door comes in two models - The Grandline and Narrowline

Both models feature:

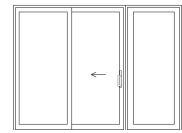
- Warp-resistant Fiberglass
- Silky smooth, silent glide rollers
- Integrated exterior screen track
- Raised sliding track keeps rollers cleaner for a longer lasting, fluid glide



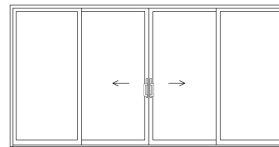
OX / XO



OOX / XOO



OXO



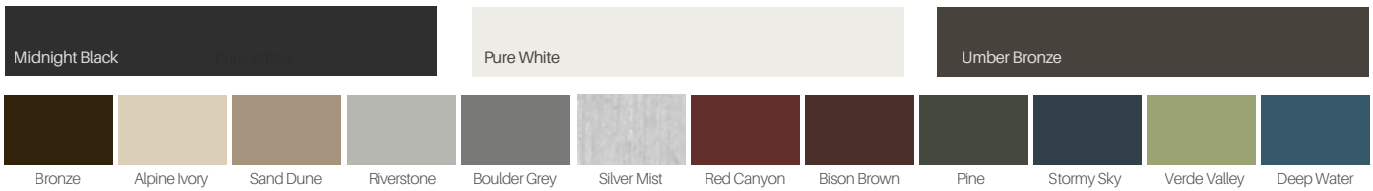
OXOX



TRANSOMS



SIDELIGHTS



Printed colors provide a general reference and are not an exact match to the final product. Order samples on our website at www.thinkalpen.com.

Signature



Contemporary



Black



White



Satin Nickel



Faux Bronze

Optional auxiliary foot lock available in black and white.

ZENITH GRANDLINE MODEL

ZENITH NARROWLINE MODEL



Available in sizes up to 9 feet tall

Available in sizes up to 8 feet tall

Stainless steel 3-point lock system

Narrow Sightlines maximize glass area for small door sizes

Wider sash profiles support larger sizes and higher wind loads

Two-point keyed mortise lock

Concealed internal corner keys with 16-screw connections

Low sill step over height

Designed to seamlessly connect you to the outdoors, these doors offer expansive views, abundant natural light, and modern aesthetics. With sleek profiles and cutting-edge engineering, Zenith Sliding Doors provide unobstructed views, energy efficiency, and lasting durability—all with smooth, effortless operation and enhanced security.

TYROL SERIES

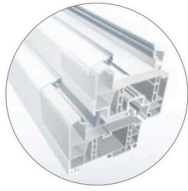


Premium Fiberglass
Reinforced uPVC

Industry Leading Triple
and Quad Pane ThinGlass

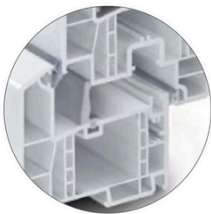
Whole Window NFRC
Certified up to R-11

Our Tyrol series offers European Style fiberglass-reinforced uPVC, European aesthetics, German-engineered hardware, Alpen's industry-leading lightweight triple pane and quad pane glazing technology - achieving both PHIUS and PHI certification standards. This series offers dual-action, inward swing windows (tilt-turn/hopper) and versatile door options (tilt-glide and swing), all while delivering up to R-11 full frame performance for unparalleled energy efficiency. Constructed with durable materials, Tyrol ensures robust water and air resistance, protecting your indoor environment.



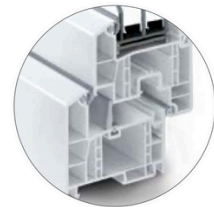
RAU-FIPRO® Profile Core

Achieves excellent stability and torsional rigidity making it possible to build larger windows without the typical steel reinforcement that compromises thermal insulation.



Compression Seal Technology

Reduces closing pressure significantly, making window operation easy and extending the service life with maximum insulation.



Six-Chambered Frame

Provides thermal insulation that exceeds the requirements of the U.S. Department of Energy R-5 Window program



Patented Integrated Reinforcement System

Ensures the highest degree of strength at all critical points, using screw channels and additional lateral stiffening.



High Definition Finish

Enhances weather resistance and is very easy to clean due to its exceptionally smooth, luminous properties.





Beacon Hill Passive House in Kansas City, MO

Architect: Hoke Ley

Builder: Kala Performance Homes

Featuring Tyrol series windows and Doors



Experience optimal energy efficiency and thermal performance in any season.

Our timeless Tyrol Series windows and doors are NFRC Certified.

NFRC Performance for Tyrol Windows				
U-Factor	R-Value	SHGC	VT	CR
Down to 0.09	Up to R-11	0.15 - 0.45	0.36 - 0.56	Up to 84

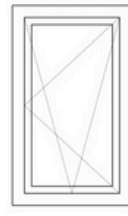


NFRC Performance for Tyrol Doors				
U-Factor	R-Value	SHGC	VT	CR
Down to 0.14	Up to R-7	0.09 - 0.40	0.16 - 0.49	Up to 84

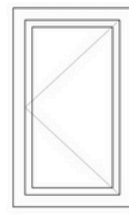




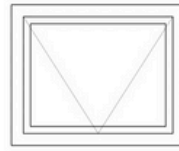
Picture



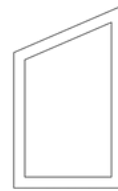
Tilt-Turn



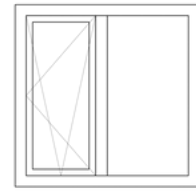
Turn Only



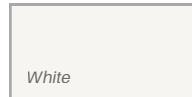
Hopper



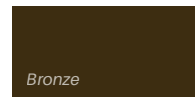
Geometric



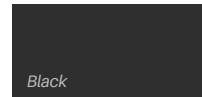
Assembly



White



Bronze



Black

Printed colors provide a general reference and are not an exact match to the final product. Order samples on our website at www.thinkalpen.com.



White



Bronze



Black

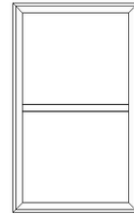


Nickel

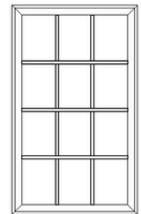


Simulated Divided Lights

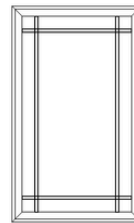
Enhance your windows with our simulated divided lights, combining classic charm with modern energy efficiency.



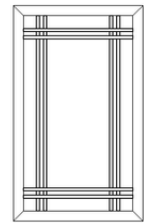
Faux Interlock



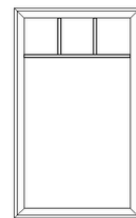
Colonial



Prairie



Double Prairie



Ladder

Simulated Divided Lights are hand-cut, hand-painted, and hand-applied, with the option for custom patterns to suit your design needs.



Wildewood House in Nederland, CO

Architect: Shape Architecture

Featuring Tyrol Windows and Doors

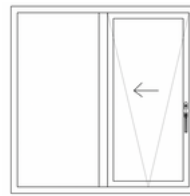




TYROL DOOR DESIGN OPTIONS



Experience comfort and home efficiency with Tyrol series doors. Tyrol's versatile options blend durability and performance with European style.



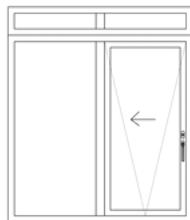
Tilt-Glide



Swing



French



Tilt-Glide Transoms

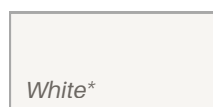


Transoms

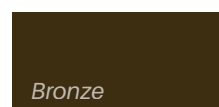


Sidelights

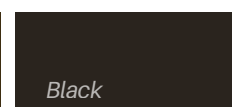
FRAME FOIL COLOR OPTIONS



White*



Bronze



Black

*Core enamel, not foil



White

Nickel

Bronze

Black

Printed colors provide a general reference and are not an exact match to the final product. Order samples on our website at www.thinkalpen.com.



Tilt-Glide



Swing Door





GLASS



ALPEN THINGLASS

High-Performance Glass for Residential Project Design

For over 40 years, we've been delivering advanced glass solutions that inspire architects, builders, and homeowners to achieve energy-efficient, forward-thinking designs. Our innovative glass technology transforms window performance with exceptional energy efficiency and lightweight design.

Superior Insulation

Thin triple or quad-pane glass with performance up to an impressive R-15.

Proven Reliability

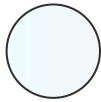
Made in the USA, backed by an industry leading warranty, with millions of square feet installed across North America.

Lightweight Innovation

Up to 50% lighter than traditional glass, enabling expansive and creative window designs.

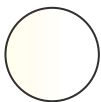
Enhanced Comfort

Improves indoor temperature stability and reduces outside noise for a quieter, more comfortable living space.



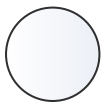
SolarControl

Increased protection against solar gain keeps spaces cool in summer and swing seasons



Balanced

Blend of low U-Factor and moderate solar control ensures high performance in all climates



HighGain

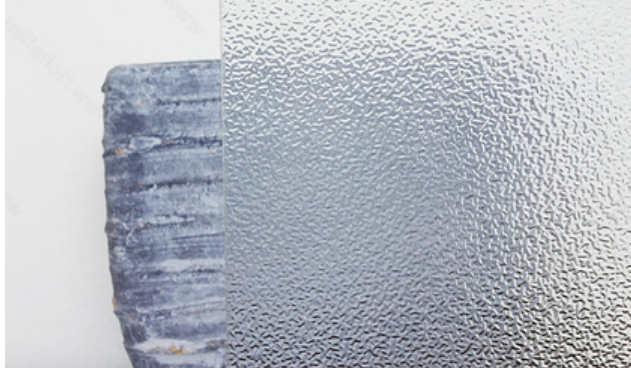
Maximum light and solar height gain - ideal for passive solar homes and in spaces where more daylight is desired

**ThinGlass Triple
Center of Glass Performance**

COATING	U-FACTOR	SHGC
SolarControl-6 TGT	0.12	0.25
Balanced-6 TGT	0.12	0.35
HighGain-6 TGT	0.13	0.57

**ThinGlass Quad
Center of Glass Performance**

COATING	U-FACTOR	SHGC
SolarControl-9 TGQ	0.10	0.23
Balanced-9 TGQ	0.09	0.33
HighGain-9 TGQ	0.07	0.53
SolarControl R-10 TGQ	0.07	0.21



Pattern 62 (Pinhead)



Aquatex



Satin Etched



Rain



Reeded (1/2")



PERFORMANCE






Low (L)
Lowest Solar Heat Gain Coefficient
SolarControl






Medium (M)
Low U-Factor, High Visible Light
Balanced

High (H)
Maximum Passive Gain and Daylight
HighGain

ZR-5 FULL FRAME NFRC DATA								CENTER-OF-GLASS PERFORMANCE			
TYPE	GLASS PACKAGE	U-FACTOR	R-VALUE	SHGC	VT	CR	AIR INFILTRATION	U-FACTOR	R-VALUE	SHGC	VT
Fixed Low Profile	5L TGT	0.19	5.3	0.22	0.53	73	<0.01 cfm/ft ²	0.18	5.6	0.25	0.60
	5M TGT	0.20	5.0	0.34	0.59	72	<0.01 cfm/ft ²	0.19	5.3	0.39	0.66
	5H TGT	0.20	5.0	0.53	0.65	71	<0.01 cfm/ft ²	0.19	5.3	0.60	0.73
Fixed High Profile	5L TGT	0.18	5.6	0.20	0.47	72	<0.01 cfm/ft ²	0.18	5.6	0.25	0.60
	5M TGT	0.19	5.3	0.31	0.52	72	<0.01 cfm/ft ²	0.19	5.3	0.39	0.66
	5H TGT	0.19	5.3	0.48	0.58	71	<0.01 cfm/ft ²	0.19	5.3	0.60	0.73
Casement & Awning	5L TGT	0.20	5.0	0.18	0.41	73	0.02 cfm/ft ²	0.18	5.6	0.25	0.60
	5M TGT	0.20	4.8	0.27	0.45	72	0.02 cfm/ft ²	0.19	5.3	0.39	0.66
	5H TGT	0.21	4.8	0.41	0.50	72	0.02 cfm/ft ²	0.19	5.3	0.60	0.73
Single Hung	5L TGT	0.24	4.2	0.20	0.45	65	0.05 cfm/ft ²	0.22	4.5	0.26	0.60
	5M TGT	0.25	4.0	0.30	0.50	64	0.05 cfm/ft ²	0.22	4.5	0.39	0.67
	5H TGT	0.25	4.0	0.45	0.55	64	0.05 cfm/ft ²	0.23	4.3	0.60	0.74
Double Hung	5L TGT	0.26	3.8	0.19	0.47	65	0.09 cfm/ft ²	0.22	4.5	0.26	0.60
	5M TGT	0.26	3.8	0.28	0.43	64	0.09 cfm/ft ²	0.22	4.5	0.39	0.67
	5H TGT	0.26	3.8	0.43	0.52	64	0.09 cfm/ft ²	0.23	4.3	0.60	0.74
Horizontal Slider	5L TGT	0.24	4.2	0.20	0.46	63	0.09 cfm/ft ²	0.22	4.5	0.26	0.60
	5M TGT	0.25	4.0	0.30	0.51	63	0.09 cfm/ft ²	0.22	4.5	0.39	0.67
	5H TGT	0.25	4.0	0.47	0.56	63	0.09 cfm/ft ²	0.23	4.3	0.60	0.74

ZR-6 FULL FRAME NFRC DATA								CENTER-OF-GLASS PERFORMANCE			
TYPE	GLASS PACKAGE	U-FACTOR	R-VALUE	SHGC	VT	CR	AIR INFILTRATION	U-FACTOR	R-VALUE	SHGC	VT
Fixed Low Profile	SolarControl-6 TGT	0.14	7.1	0.22	0.51	79	<0.01 cfm/ft ²	0.12	8.3	0.25	0.58
	Balanced-6 TGT	0.14	7.1	0.32	0.51	79	<0.01 cfm/ft ²	0.12	8.3	0.36	0.58
	HighGain-6 TGT	0.15	6.7	0.51	0.62	78	<0.01 cfm/ft ²	0.13	7.7	0.58	0.71
Fixed High Profile	SolarControl-6 TGT	0.14	7.1	0.20	0.45	79	<0.01 cfm/ft ²	0.12	8.3	0.25	0.58
	Balanced-6 TGT	0.14	7.1	0.28	0.46	79	<0.01 cfm/ft ²	0.12	8.3	0.36	0.58
	HighGain-6 TGT	0.14	7.1	0.45	0.56	78	<0.01 cfm/ft ²	0.13	7.7	0.58	0.71
Casement & Awning	SolarControl-6 TGT	0.16	6.2	0.17	0.39	80	0.02 cfm/ft ²	0.12	8.3	0.25	0.58
	Balanced-6 TGT	0.16	6.2	0.25	0.39	80	0.02 cfm/ft ²	0.12	8.3	0.36	0.58
	HighGain-6 TGT	0.16	6.2	0.39	0.48	79	0.02 cfm/ft ²	0.13	7.7	0.58	0.71
Single Hung	SolarControl-6 TGT	0.20	5.0	0.19	0.43	68	0.05 cfm/ft ²	0.17	5.9	0.25	0.58
	Balanced-6 TGT	0.20	5.0	0.27	0.44	68	0.05 cfm/ft ²	0.17	5.9	0.36	0.58
	HighGain-6 TGT	0.21	4.8	0.43	0.53	68	0.05 cfm/ft ²	0.18	5.6	0.58	0.71
Double Hung	SolarControl-6 TGT	0.22	4.5	0.18	0.41	68	0.09 cfm/ft ²	0.17	5.9	0.25	0.58
	Balanced-6 TGT	0.22	4.5	0.26	0.41	68	0.09 cfm/ft ²	0.17	5.9	0.36	0.58
	HighGain-6 TGT	0.23	4.3	0.41	0.50	68	0.09 cfm/ft ²	0.18	5.6	0.58	0.71
Horizontal Slider	SolarControl-6 TGT	0.20	5.0	0.20	0.44	67	0.09 cfm/ft ²	0.17	5.9	0.25	0.58
	Balanced-6 TGT	0.20	5.0	0.28	0.45	67	0.09 cfm/ft ²	0.17	5.9	0.36	0.58
	HighGain-6 TGT	0.21	4.8	0.44	0.54	67	0.09 cfm/ft ²	0.18	5.6	0.58	0.71
Grandline Door	SolarControl-6 TGT	0.18	5.6	0.17	0.39	72	0.13 cfm/ft ²	0.12	8.3	0.25	0.58
	Balanced-6 TGT	0.18	5.6	0.25	0.49	72	0.13 cfm/ft ²	0.12	8.3	0.36	0.58
	HighGain-6 TGT	0.18	5.6	0.40	0.48	72	0.13 cfm/ft ²	0.13	7.7	0.58	0.71
Narrowline Door	SolarControl-6 TGT	0.18	5.6	0.19	0.43	72	0.13 cfm/ft ²	0.12	8.3	0.25	0.58
	Balanced-6 TGT	0.18	5.6	0.27	0.43	72	0.13 cfm/ft ²	0.12	8.3	0.36	0.58
	HighGain-6 TGT	0.18	5.6	0.43	0.52	72	0.13 cfm/ft ²	0.13	7.7	0.58	0.71



ZR-9 FULL FRAME NFRC DATA								CENTER-OF-GLASS PERFORMANCE			
TYPE	GLASS PACKAGE	U-FACTOR	R-VALUE	SHGC	VT	CR	AIR INFILTRATION	U-FACTOR	R-VALUE	SHGC	VT
 Fixed Low Profile	SolarControl-9 TGQ	0.12	8.3	0.20	0.47	82	<0.01 cfm/ft ²	0.10	10.0	0.23	0.54
	Balanced-9 TGQ	0.12	8.3	0.29	0.47	82	<0.01 cfm/ft ²	0.09	11.1	0.33	0.54
	HighGain-9 TGQ	0.12	8.3	0.47	0.58	82	<0.01 cfm/ft ²	0.10	10.0	0.54	0.66
 Fixed High Profile	SolarControl-9 TGQ	0.12	8.3	0.18	0.42	83	<0.01 cfm/ft ²	0.10	10.0	0.23	0.54
	Balanced-9 TGQ	0.11	9.1	0.26	0.42	82	<0.01 cfm/ft ²	0.09	11.1	0.33	0.54
	HighGain-9 TGQ	0.12	8.3	0.42	0.52	82	<0.01 cfm/ft ²	0.10	10.0	0.54	0.66
 Casement & Awning	SolarControl-9 TGQ	0.14	7.1	0.16	0.36	83	0.02 cfm/ft ²	0.10	10.0	0.23	0.54
	Balanced-9 TGQ	0.14	7.1	0.23	0.36	83	0.02 cfm/ft ²	0.09	11.1	0.33	0.54
	HighGain-9 TGQ	0.15	6.7	0.37	0.44	82	0.02 cfm/ft ²	0.10	10.0	0.54	0.66
 Grandline Door	SolarControl-9 TGQ	0.16	6.2	0.16	0.37	72	0.13 cfm/ft ²	0.10	10.0	0.23	0.54
	Balanced-9 TGQ	0.16	6.2	0.23	0.37	72	0.13 cfm/ft ²	0.09	11.1	0.33	0.54
	HighGain-9 TGQ	0.16	6.2	0.37	0.45	72	0.13 cfm/ft ²	0.10	10.0	0.54	0.66
 Narrowline Door	SolarControl-9 TGQ	0.15	6.7	0.17	0.40	73	0.13 cfm/ft ²	0.10	10.0	0.23	0.54
	Balanced-9 TGQ	0.15	6.7	0.25	0.40	73	0.13 cfm/ft ²	0.09	11.1	0.33	0.54
	HighGain-9 TGQ	0.16	6.2	0.40	0.49	73	0.13 cfm/ft ²	0.10	10.0	0.54	0.66



ZR-10 FULL FRAME NFRC DATA								CENTER-OF-GLASS PERFORMANCE			
TYPE	GLASS PACKAGE	U-FACTOR	R-VALUE	SHGC	VT	CR	AIR INFILTRATION	U-FACTOR	R-VALUE	SHGC	VT
 Fixed Low Profile	SolarControl-10 TGQ	0.10	10.0	0.19	0.44	72	<0.01 cfm/ft ²	0.07	14.3	0.21	0.50
 Fixed High Profile	SolarControl-10TGQ	0.10	10.0	0.17	0.40	71	<0.01 cfm/ft ²	0.07	14.3	0.21	0.50
 Casement & Awning	SolarControl-10 TGQ	0.13	7.7	0.15	0.34	70	0.02 cfm/ft ²	0.07	14.3	0.21	0.50
 Grandline Door	SolarControl-10 TGQ	0.14	7.1	0.15	0.34	71	0.13 cfm/ft ²	0.07	14.3	0.21	0.50
 Narrowline Door	SolarControl-10 TGQ	0.14	7.1	0.16	0.37	69	0.13 cfm/ft ²	0.07	14.3	0.21	0.50



Low (L)
Lowest Solar Heat
Gain Coefficient
SolarControl

Medium (M)
Low U-Factor, High
Visible Light
Balanced

High (H)
Maximum Passive
Gain and Daylight
HighGain

TR-6 FULL FRAME NFRC DATA								CENTER-OF-GLASS PERFORMANCE			
TYPE	GLASS PACKAGE	U-FACTOR	R-VALUE	SHGC	VT	CR	AIR INFILTRATION	U-FACTOR	R-VALUE	SHGC	VT
 Fixed	SolarControl-6 TGT	0.14	7.1	0.20	0.45	75	<0.01 cfm/ft ²	0.12	8.3	0.25	0.57
	Balanced-6 TGT	0.14	7.1	0.28	0.46	79	<0.01 cfm/ft ²	0.12	8.3	0.36	0.58
	HighGain-6 TGT	0.15	6.7	0.45	0.56	78	<0.01 cfm/ft ²	0.13	7.7	0.58	0.71
 Tilt-Turn/Hopper	SolarControl-6 TGT	0.15	6.7	0.17	0.39	80	0.02 cfm/ft ²	0.12	8.3	0.25	0.57
	Balanced-6 TGT	0.15	6.7	0.24	0.39	80	0.02 cfm/ft ²	0.12	8.3	0.36	0.58
	HighGain-6 TGT	0.15	6.7	0.39	0.48	80	0.02 cfm/ft ²	0.13	7.7	0.58	0.71

TR-9 FULL FRAME NFRC DATA								CENTER-OF-GLASS PERFORMANCE			
TYPE	GLASS PACKAGE	U-FACTOR	R-VALUE	SHGC	VT	CR	AIR INFILTRATION	U-FACTOR	R-VALUE	SHGC	VT
 Fixed	SolarControl-9 TGT	0.12	8.5	0.18	0.42	85	<0.01 cfm/ft ²	0.10	10.0	0.23	0.54
	Balanced-9 TGT	0.12	8.5	0.26	0.42	85	<0.01 cfm/ft ²	0.09	11.1	0.33	0.54
	HighGain-9 TGT	0.12	8.2	0.42	0.52	84	<0.01 cfm/ft ²	0.10	10.0	0.54	0.56
 Tilt-Turn/Hopper	SolarControl-9 TGT	0.13	7.8	0.16	0.36	84	0.02 cfm/ft ²	0.10	10.0	0.23	0.54
	Balanced-9 TGT	0.13	7.8	0.23	0.36	84	0.02 cfm/ft ²	0.09	11.1	0.33	0.54
	HighGain-9 TGT	0.13	7.6	0.36	0.44	84	0.02 cfm/ft ²	0.10	10.0	0.54	0.56

TR-11 FULL FRAME NFRC DATA								CENTER-OF-GLASS PERFORMANCE			
TYPE	GLASS PACKAGE	U-FACTOR	R-VALUE	SHGC	VT	CR	AIR INFILTRATION	U-FACTOR	R-VALUE	SHGC	VT
 Fixed	SolarControl-11 TGT	0.09	11.1	0.17	0.4	75	<0.01 cfm/ft ²	0.07	14.3	0.21	0.5
 Tilt-Turn/Hopper	SolarControl-11 TGT	0.11	9.3	0.15	0.34	74	0.02 cfm/ft ²	0.07	14.3	0.21	0.5





ALPEN

303-834-3600 • www.thinkalpen.com
335 Centennial Blvd Ste A.
Louisville, CO 80027

Version: 2025F6.3