

CertainTeed

# BRIGHT IDEAS

DESIGN AND BUILD THE DISTINCTIVE HOMES THAT SELL WITH NEW CASTLE XT™ WINDOWS AND DOORS.



**CertainTeed** ®  
*Quality made certain. Satisfaction guaranteed.™*



For more information visit  
[www.certainteed.com](http://www.certainteed.com)



# MORE STYLE FOR THE MONEY.

CertainTeed's New Castle XT new construction windows can give your project an appeal you simply can't match with any other brand. Each detail reflects the look of traditional craftsmanship, while the wide variety of shapes and sizes lets you create virtually any look imaginable.

## **A carpentered look.**

Even at first glance, the features remind you of the finest custom-crafted windows. Exterior edges are beveled for the trim feeling of wood, while interior lines stay sleek with high-quality color-matched hardware. Grids between the glass offer the classic look of divided lites with easy cleaning.

## **A profitable selection.**

CertainTeed windows truly give you more for your money. You can use more — and larger — windows for nearly the same cost as standard wood windows. There's a selection of more than 25 styles in nearly 1,000 sizes, including single-hung, double-hung, casement, awning, slider, bay and bow, picture, garden, patio doors, and custom, as well as a dozen geometric shapes. In fact, with Architectural Shapes™ geometric windows you can create the distinctive homes buyers want, for roughly half the cost of wood geometric windows!

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# MORE VALUE IN EVERY WINDOW.

**The best quality for a competitive price.** There are over 600 window lines on the market today — and hundreds of them are vinyl. But they're not all created equal.

Ordinary vinyl windows are designed for low cost, not for value, with materials that are chosen with price, not performance, in mind. CertainTeed windows are designed for value first. Whether for residential, institutional, or light commercial use, every feature — from the sash and frame to the balance system to the hardware and the glazing system — has been engineered, refined, and tested for decades of superior performance. The chart at right puts it all into perspective.

Feature	Best value solution	Low cost solution
<b>Sash and frame</b>	Robust double-walled profiles	Single-walled profiles
<b>Sash construction</b>	Fusion welding	Mechanical fastening
<b>Glass spacer technology</b>	New (warm edge with low conductance)	Old fashioned (aluminum with high conductance)
<b>Performance ratings</b>	Significantly exceeds industry standards	Meets industry standards
<b>Balance system</b>	3/4" stainless steel, constant-force	Block and tackle or spiral
<b>Hardware/lock</b>	Custom-designed; color-matched to vinyl profiles	Off-the-shelf; color does not match vinyl profiles
<b>Styling/design</b>	Engineered for a balance of traditional looks and functionality	Engineered for functionality
<b>Warranty period</b>	Lifetime	10 to 20 years

## ENERGY STAR® PERFORMANCE IN ALL FOUR U.S. CLIMATE ZONES.

CertainTeed windows with the proprietary Thermafect® glazing system meet ENERGY STAR guidelines for thermal efficiency in all four U.S. climate zones. That means your customers will save energy, wherever they are.

The latest advancements deliver optimum performance under the widest possible range of conditions. A combination of an insulating frame and sash, fusion-welded construction, and integral glazing resists air and water infiltration nearly 100% better than the minimum AAMA/WDMA standards. The Thermafect Low "E" glazing system with low-conductance spacer and argon gas significantly outperforms commonly available glazing systems in UV block, shading coefficient, and solar heat gain coefficient — for year-round comfort.



## ENGINEERING FOR DECADES OF TROUBLE-FREE OPERATION.

CertainTeed windows are designed for easy use and easy care. Every design detail and operating feature has been tested in independent laboratories, and has been proven in the home environment for decades.

And solid vinyl construction means these windows are virtually maintenance-free. They'll never need scraping, painting, or puttying.



## THE WINDOWS PROVEN IN MILLIONS OF HOMES.

CertainTeed windows have been proven in over 18 million installations, for residential and light commercial applications. And they've been proven in the home environment for decades.

It's no wonder that CertainTeed windows are the number one choice of building professionals across the country. And that they've been rated number one by an independent consumer group.



## PROTECTION THAT LETS YOU WORRY LESS AND PLAY MORE.

CertainTeed's got a track record you can count on. The financial support of a \$2.5 billion corporation. A century of experience in building supplies. And an ongoing commitment to R&D that's kept them at the forefront of window technology.

CertainTeed New Castle XT windows are covered by one of the best warranties in the industry: lifetime limited protection, plus SureStart™ protection to cover materials *and labor* during the first five years after installation. So you never have to worry.



# MORE EFFICIENT PERFORMANCE.

New Castle XT windows and patio doors are manufactured to CertainTeed's nationally established quality standards by a nationwide network of wholly-owned and exclusive licensed fabricators.

CertainTeed and its fabricators are participants in the **NFRC** (National Fenestration Rating Council) thermal performance rating and labeling program. They are **AAMA/WDMA** certified for air, water, and structural performance, and are participants in the insulating glass seal integrity testing programs conducted by **ALL** testing labs.

**Thermal performance.** A double-pane insulating unit with clear glass and a low-conductance spacer is standard in New Castle XT windows and patio doors. For optimum performance, a glazing system using CertainTeed's proprietary **Thermafect®** Low "E" glass, a low-conductance spacer, and argon gas can deliver the best U- and R-values in its class. The **Thermafect** glazing system is unsurpassed in the balanced performance it provides, helping to save energy costs in both hot and cold weather.

**Air, water, and structural performance.** With fusion-welded frames and sashes, integral glazing, and double weatherstripping, New Castle XT windows and patio doors achieve high levels of performance. They meet the rigid **AAMA/WDMA** "no leakage" standards for water infiltration and significantly exceed the standards for air infiltration and structural strength and integrity.



CertainTeed windows with the **Thermafect®** glazing system meet the **ENERGY STAR®** guidelines for thermal efficiency in all climate regions.

## Thermal Performance

Glazing Type	Total Unit U-Values <sup>1</sup>							Center of Glass U-Value <sup>3</sup>	Daylight Transmittance <sup>4</sup>	UV Block <sup>4,5</sup>	Solar Heat Gain Coefficient <sup>6</sup>
	Single-Hung	Double-Hung	Slider	Picture	Casement	Awning	Patio Door				
Standard Double-Pane	0.48	0.46	0.48	0.49	0.51	0.51	0.48	0.49	82%	43%	0.58
Thermafect®/Argon and Low-Conductance Spacer <sup>2</sup>	0.31	0.31	0.31	0.30	0.34	0.35	0.31	0.24	71%	84%	0.29

<sup>1</sup> Casement and awning tested in accordance with NFRC 100-97. All others tested in accordance to NFRC 100-2001. Data applicable for double-pane insulating units using either double-strength double pane glass with a 1/2" air space or single-strength glass with 3/8" air space.

Window Style	Size
Single-Hung	47" x 59"
Double-Hung	47" x 59"
Slider	59" x 47"
Picture	47" x 59"
Casement	24" x 48"
Awning	48" x 24"
Patio Door	79" x 79"

<sup>2</sup> Low-conductance spacer used in these tests was **TruSeal's Swiggle®** Seal.

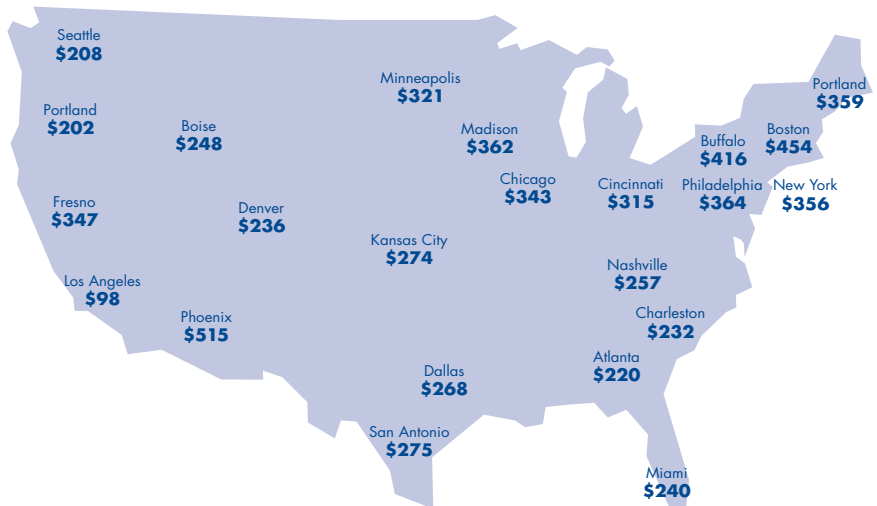
<sup>3</sup> Center of glass U-values supplied by glass manufacturers.

<sup>4</sup> Calculations performed using the Lawrence Berkeley Laboratories Window 4.1 computer program and a 3/4" insulating unit.

<sup>5</sup> Based on UV transmission from 300 to 380 nm.

<sup>6</sup> Solar Heat Gain Coefficient (SHGC) for a 47" x 59" double-hung tested in accordance with NFRC 100-2001. Solar Heat Gain Coefficient varies by style, glazing system, and presence of grids. All New Castle XT™ windows with the **Thermafect** glazing system have a SHGC less than .40.

## Thermafect can help save energy costs wherever you are.\*



Whether your winters are snowy and long, or the sun rides high every day, **Thermafect's** balanced performance can help reduce the cost of keeping your home comfortable. The map shows the calculated savings in energy costs for an average home in which the windows have been changed from aluminum windows with single-pane glass to vinyl windows with the **Thermafect®** glazing system.

\*These calculations are based on a 2400 ft<sup>2</sup> two-story frame house, with 432 ft<sup>2</sup> of window area, R-19 walls, R-30 roof and equal distribution of glazing in the four cardinal directions.

## Air, Water, and Structural Performance

Styles		Size	Test Method	Total Unit Air Infiltration @ 25 MPH	Water Penetration (PSF)	Overall Rating
Single-Hung Window		32" x 72"	AAMA/NWWDA 101/I.S.2-97	.14 CFM	7.50	H-R50
		36" x 72"	AAMA/NWWDA 101/I.S.2-97	.14 CFM	7.50	H-R50
		44" x 60"	AAMA/NWWDA 101/I.S.2-97	.14 CFM	7.50	H-R50
Double-Hung Window		32" x 80"	AAMA/NWWDA 101/I.S.2-97	.19 CFM	7.50	H-LC50
		37" x 66"	AAMA/NWWDA 101/I.S.2-97	.14 CFM	7.50	H-LC50
		44" x 60"	AAMA/NWWDA 101/I.S.2-97	.18 CFM	7.50	H-R45
Picture Window		72" x 72"	AAMA/NWWDA 101/I.S.2-97	<.01 CFM	12.00	F-C55
		96" x 60"	AAMA/NWWDA 101/I.S.2-97	<.01 CFM	12.00	F-R45*
		120" x 60"	AAMA/NWWDA 101/I.S.2-97	<.01 CFM	12.00	F-R35
Single Slider Window	(X0)	72" x 60"	AAMA/NWWDA 101/I.S.2-97	.16 CFM	5.25	HS-R35
Double Slider Window	(XX)	60" x 42"	AAMA/NWWDA 101/I.S.2-97	.13 CFM	7.50	HS-R50
	(XX)	72" x 36"	AAMA/NWWDA 101/I.S.2-97	.13 CFM	7.50	HS-R50
3-Lite End-Vent	(XOX)	144" x 48"	AAMA/NWWDA 101/I.S.2-97	.14 CFM	3.75	HS-R20
Single Slider Window	(XOX)	120" x 60"	AAMA/NWWDA 101/I.S.2-97	.10 CFM	4.50	HS-R15
3-Lite Center-Vent	(OX0)	110" x 52"	AAMA/NWWDA 101/I.S.2-97	.04 CFM	5.25	HS-R25
Single Slider Window						
3-Lite End-Vent	(XOX)	144" x 65"	AAMA/NWWDA 101/I.S.2-97	.12 CFM	3.75	HS-R25
Double Slider Window						
3-Lite Center-Vent	(OX0)	110" x 52"	AAMA/NWWDA 101/I.S.2-97	.12 CFM	5.25	HS-R25
Double Slider Window						
Casement Window		28" x 80"	AAMA/NWWDA 101/I.S.2-97	.01 CFM	9.00	C-C40
		36" x 52"	AAMA/NWWDA 101/I.S.2-97	.01 CFM	9.00	C-C55
		36" x 80"	AAMA/NWWDA 101/I.S.2-97	.01 CFM	9.00	C-C30
Fixed Window		60" x 36"	AAMA/NWWDA 101/I.S.2-97	.01 CFM	12.00	C-R70
Casement Style		72" x 72"	AAMA/NWWDA 101/I.S.2-97	.01 CFM	12.00	C-LC60
Awning Window		48" x 30"	AAMA/NWWDA 101/I.S.2-97	.01 CFM	7.50	AP-C50
Garden Window		62" x 63"	AAMA/NWWDA 101/I.S.2-97	.01 CFM	5.25	GH-R35
Standard Patio Doors	2-panel (OX)	72" x 80"	AAMA/NWWDA 101/I.S.2-97	.04 CFM	7.50	SGD-R50†
	2-panel (OX)	96" x 82"	AAMA/NWWDA 101/I.S.2-97	.03 CFM	5.25	SGD-C25
	3-panel (00X)	144" x 82"	AAMA/NWWDA 101/I.S.2-97	.04 CFM	3.75	SGD-R20
	4-panel (OXX0)	144" x 82"	AAMA/NWWDA 101/I.S.2-97	.11 CFM	3.75	SGD-R20
French Patio Doors	2-panel (OX)	96" x 82"	AAMA/NWWDA 101/I.S.2-97	.07 CFM	5.25	SGD-C35
	3-panel (00X)	144" x 82"	AAMA/NWWDA 101/I.S.2-97	.07 CFM	5.25	SGD-C25
	4-panel (OXX0)	144" x 82"	AAMA/NWWDA 101/I.S.2-97	.13 CFM	3.00	SGD-LC20

NOTE: Higher grade ratings may be available, contact your fabricator for information regarding these products.

\* Limited by AAMA 101-97 requirements that overall grade ratings must adhere to the maximum glass area per ASTM E 1300.

† For R50, specify when ordering.

### Glossary of performance terms.

■ **Daylight Transmittance:** Measures the amount of visible light that is transmitted through the glass.

■ **Low "E":** Low-emissivity glass is coated with a microscopically thin metallic layer that allows visible light to pass through, while blocking ultraviolet and infrared solar energy and reflecting away long-wave room-side heat energy. Different types of Low "E" coatings offer varying levels of performance for each of these tasks.

■ **Solar Heat Gain Coefficient:** The amount of direct solar radiation that enters through the glass into the home as heat. The smaller the number, the better the glazing is at preventing solar heat gain.

■ **U-Value:** The rate of heat flow through a glazing system; the lower the value, the better the insulating quality. U-value can be compared to R-value by dividing 1 by the U-value. (Thus, a U-value of 0.5 equals an R-value of 2.)

■ **UV Block:** Measures the amount of damaging ultraviolet light that is blocked from being transmitted through the glass.

### Meets or exceeds standard building code requirements.

New Castle XT windows are tested in compliance with ASTM fire and smoke test procedures. They comply with ASTM D635 with an average burn time of ≤ 5 seconds and a burn distance of ≤ 10mm. They also comply with AAMA 303, having minimum ignition temperature of 824° F when tested in accordance with ASTM D1929.

New Castle XT windows meet the requirements of CMBSO forced entry resistance test.