



**Engineering progress
Enhancing lives**

Design. Versatility. Performance

EuroDesign 4500 window and door solutions



Contents

04	windows and doors
04	EuroDesign 4500 solutions
10	Tilt-turn, hopper and fixed windows
16	Swing doors
20	Tilt-slide doors
24	REHAU profile formulation
26	The all-around talent

Your vision comes to life with our high-performance designs

The beauty of a window is in the way it expands our world, bringing light into a room. The larger the opening, the better! Many people think of a window as glass; the crucial role of the profile – the bridge between the wall and the glass – is easy to overlook. Surrounding the glass, these precision-engineered profiles insulate from the elements and support smooth operation, creating high-performance windows and doors that elevate your vision for years.

Top performance, intelligent design, timeless style

The window and door designs by REHAU are engineered to perform. They are beautiful, durable, energy efficient and available in an extensive variety of styles, colors and configurations.

uPVC delivers where others fail

A REHAU-designed window and door resists fading or corrosion. Our proprietary unplasticized polyvinyl chloride (uPVC) formulation and extrusion process result in superior profiles that outlast and outperform materials such as aluminum or wood. Plus, uPVC is a natural insulator. It resists heat loss in winter and heat gain in summer.

Less stress on the environment

Our windows and doors offer long service life and excellent thermal performance that minimize energy use. We can point to installations now exceeding 60 years in Europe and 40 years in North America – still performing strong. This conserves raw materials and prevents pollution associated with manufacturing and disposing of other, short-lived alternatives.

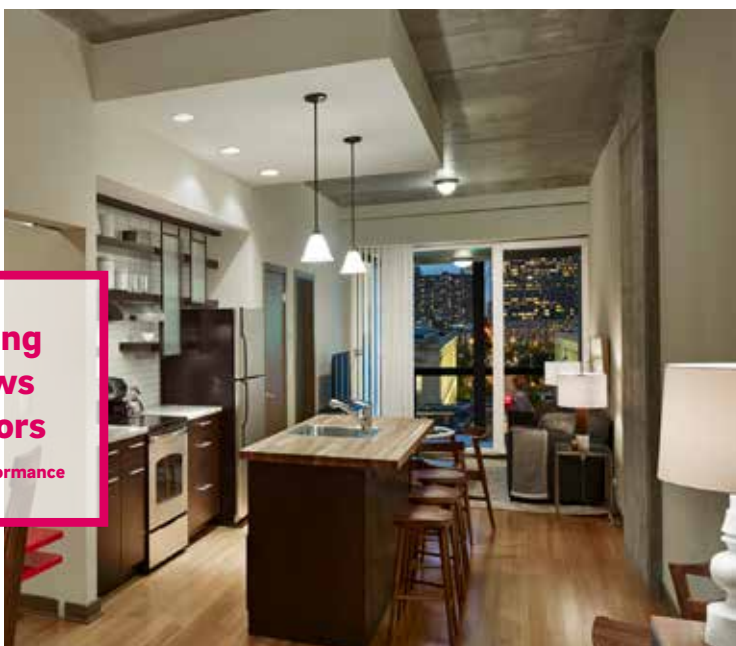


EuroDesign 4500

EuroDesign™ 4500, also known as system 4500, produces some of North America's highest performing window and door units. This versatile design can be configured into tilt-turn and fixed windows as well as inward and outward opening single entry, French and atrium doors.

**Matching
windows
and doors**

with high performance





THE
NARY



System features



Fusion-welded corners

In addition to the benefits of uPVCs thermal properties, REHAU's fusion-welded corners greatly reduce leakage potential and the need for costly sill pans/pan flashing systems.



Steel reinforcement

REHAU's sophisticated multi-chambered designs accommodate steel reinforcement that allows larger windows to remain structurally sound. This, in turn, provides greater daylight openings and brighter interior designs.



Compression-seal technology

When the wind is blowing strong and rain is pouring down, compression seals are optimizing the air and water performance of REHAU windows and doors.



Multiple locking points

Multi-point locking hardware assures consistent compression on the seals all around the perimeter of the sash and frame for further performance enhancements and improved security.



High-definition finish

Only occasional cleaning with soap and water is needed to keep the surfaces looking like new, even years after installation.

For those who want the best

System description

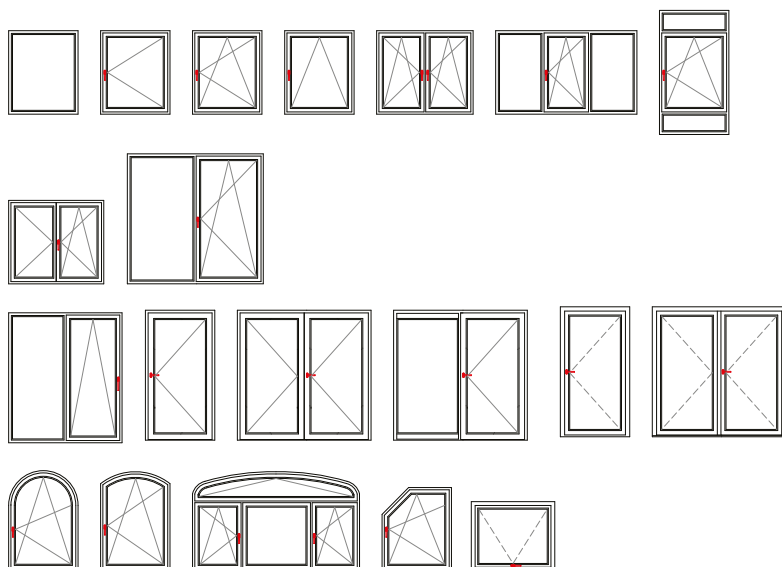
Types	Fixed, tilt-turn (dual action), hopper and awning windows. Matching doors also available.
Material	Cadmium- and lead-free RAU-PVC
Sealing system	Twin compression seals
System depth	3 1/4 in (82.5 mm) typical residential; 2 3/8 in (60 mm) commercial applications
Frame / sash overlap	5/16 in (8 mm)
Hardware axis	1/2 in (13 mm)
Max. glass thickness	1 3/8 in (35 mm)
Sightlines frame / sash	4.724 to 6.535 in (120 to 166 mm)

Performance summary

ASTM E90 acoustical (STC)	up to 43 dB; OITC 34
U-values	Down to 0.17*
Structural tests (NAFS)	Tilt-turn: up to CW-PG90 Fixed: up to CW-PG75 Hopper: up to LC-PG75
ASTM & TAS	Impact resistant DP 65 (HVHZ)

* based on simulation.

Testing of our window and door systems is ongoing. Contact your representative for the latest.



Available colors



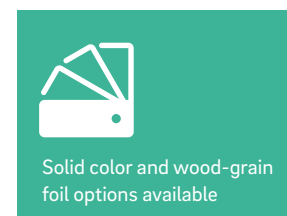
White



Beige



Clay



EuroDesign 4500

tilt-turn windows

EuroDesign 4500 window offers a very unique product for large openings in both residential and commercial markets. The versatile design is three windows in one: A secure top-venting hopper in the tilt position, an inward opening casement in the turn position and a tightly sealed picture window when closed.

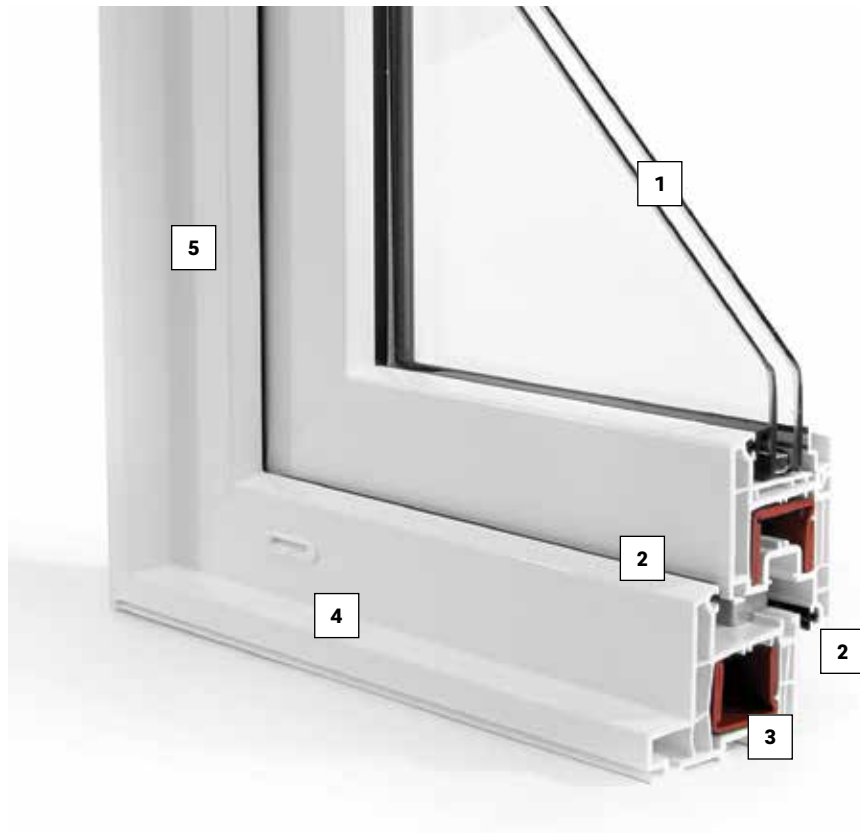
With the EuroDesign 4500, tilt-turn, awning, hopper and fixed configurations are possible. Matching doors in a variety of configurations are available.

Some of North America's highest performing window units are produced using the REHAU EuroDesign 4500.





Reaching top performance with operating and fixed designs



1 Up to 1 3/8 in (35 mm) glazing capability

Increases both energy efficiency and acoustical properties

2 Multiple locking points and dual weather seals

Create a tight seal against sound, air and water infiltration

3 Large chambers

Accommodate robust reinforcements required in heavy commercial applications

4 Frame accessory groove

Accepts a variety of accessories such as brickmolds, extension jambs and mulling components to couple window elements

5 3 1/4 in (83 mm) North American frame depth

Allows for hassle-free replacement installation; 2 3/8 in (60 mm) European frame also available



3 windows style in 1

A secure top venting hopper in the tilt position, an inward opening casement in the turn position and a tightly-sealed fixed window when closed.

For those who want the best

EuroDesign 4500 windows come in a variety of different colors: Whether you are looking for a change from white with a different core profile color or something totally unique such as modern solid foil on the window exterior with a wood look on the interior, our color options offer something for every taste.



Performance summary

NAFS (PG): up to AW-PG100

Impact: up to DP65

ASTM E90 Acoustical (STC): up to STC 43; OITC 34

ASTM E84 Class A: Flame spread 0; smoke-developed 80

SHGT (Solar Heat Gain Coefficient): Windows: 0.14 - 0.50 | Doors: 0.13 - 0.46

U-value: down to 0.17*

* based on simulation.

Testing of our window and door systems is ongoing. Contact your representative for the latest.

Available colors



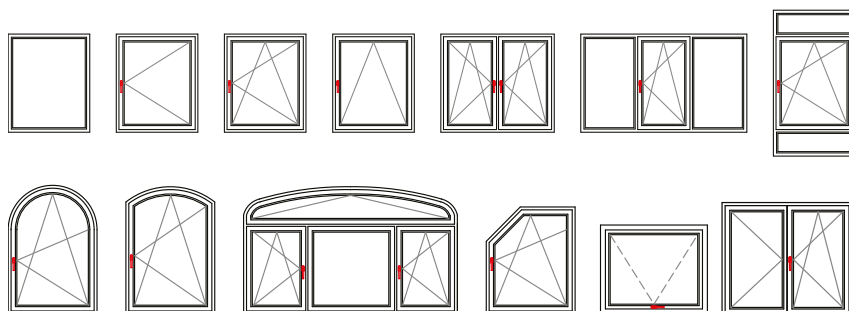
White



Beige



Clay



Solid color and wood-grain foil options available

Dominant window style in Europe; gaining popularity in North America.



The Triumph Palace in Moscow, a 52-level residential building with hotel on the upper floors, chose REHAU window designs for most of their windows.

Tilt-turn hardware allows the sash to tilt inward at the top for secure ventilation or turn inward providing a wide opening for emergency egress. When closed, this compression-seal window and door design seals tightly to provide outstanding thermal and acoustical performance.

EuroDesign 4500 windows have also passed Miami-Dade County hurricane protocol tests, allowing them to be specified for projects that reference this standard in all coastal regions, from Texas and Florida all the way to Long Island, NY.

A vinyl window that can achieve an AAMA AP-HC100 rating – impossible! Or perhaps not.

The outstanding performance of the REHAU EuroDesign 4500 window design is one of North America's best kept fenestration secrets. uPVC windows not only far exceed aluminum on thermal performance; they can also meet the highest available structural standards.

- Fusion-welded corners enhance structural strength and offer a cleaner finish
- Dual overlapping neoprene gaskets provide a tight seal against air and water infiltration
- Galvanized steel-reinforced chambers add structural strength and energy efficiency
- Insulated glass up to 1 3/8 in (35 mm) thick achieves U-values down to 0.17 (R.88)
- Multi-point locking system increases security
- ADA-compliant hardware solutions achieve disability design goals



EuroDesign 4500

swing doors

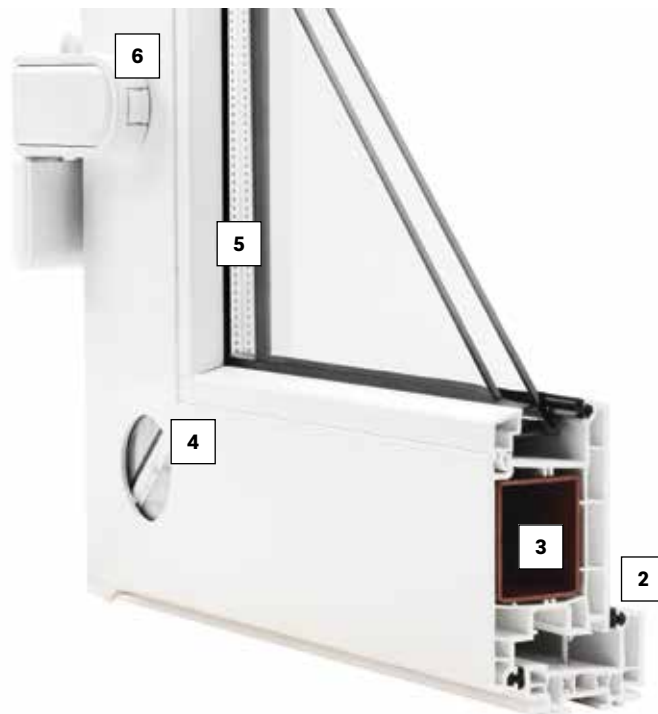
EuroDesign 4500 swing doors are offered as a single sash creating a beautiful main entrance or as dual sash, also known as French doors, that elegantly connect the indoors with the outdoors. Available as single inswing and outswing as well as double inswing and outswing configurations, these versatile doors can be used for patio, deck or balcony access as well as entry doors.

EuroDesign 4500 swing door system is an attractive solution for both residential and commercial applications. Matching windows can be paired with this door as top and side lites allowing for the greatest design flexibility.





Providing flexibility and classic beauty



Unique PVC corner blocks

Connect steel reinforcement keeping hinged door corners in-square for long-term, trouble-free operation. Outward opening and inward opening styles meet a variety of design requirements.

1 Frame profiles with different depths

Provide flexibility for new construction and replacement applications

2 Multiple locking points and compression seals all around the perimeter

Create a tight seal against sound, air and water infiltration

3 Large reinforcement chambers in the sash

Allow for sash sizes as large as 8 ft (2.4 m) high and 3.5 ft (1.1 m) wide for single doors and 3 ft (0.9 m) wide for French doors

4 Weldable corner joints in the sash profile

Strengthen the door panel against distortion providing long-term smooth operation

5 Large glazing capacity, including special high-performance glass of 1 3/8 in (35 mm) thickness

Improves energy efficiency and acoustical properties

6 High-quality European hardware

Operates quietly and effortlessly

Design flexibility

Hinged doors can be built as single as well as French doors, either inward or outward opening. They can easily be combined with top and side lites or even operable windows, providing the utmost design flexibility.



Performance summary

NAFS (PG): up to LC-PG40

Impact: up to DP65

ASTM E90 Acoustical (STC): up to STC 40; OITC 33

ASTM E84 Class A: Flame spread 0; smoke-developed 80

U-value: down to 0.23*

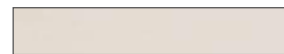
* based on simulation.

Testing of our window and door systems is ongoing. Contact your representative for the latest.

Available colors



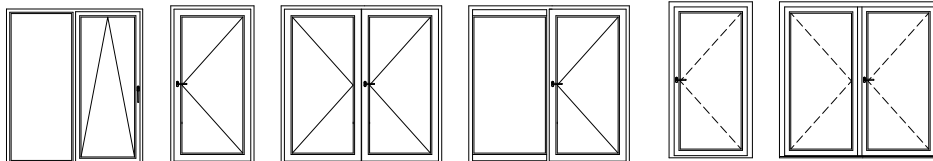
White



Beige



Clay



Solid color and wood-grain foil options available

EuroDesign 4500 **tilt-slide doors**

EuroDesign tilt-slide doors provide secure ventilation with space-saving functionality – a perfect solution in spaces where traditional in-swing doors are less than ideal or not desired.

The design allows the operable sash of the door to easily tilt and smoothly slide parallel in front of the fixed side unit, not into the room. Optimal profile design and compression-seal technology contribute to outstanding performance.

Matching fixed and operable windows can be paired with these doors as top and side lites allowing for the greatest design flexibility.





Combining a sliding style with the tilt-turn functionality of European windows



Large chambers and innovative runner mechanism

Chambers accommodate robust reinforcements required in heavy commercial applications while the runner mechanism provides smooth projection of the sash which easily and precisely slides to any desired position.

1 Large reinforcement chambers in the sash

Allow for sash sizes as large as 8 ft (2.4 m) high and 5 ft (1.5 m) wide to a weight of 260 lbs (120 kg)

2 Large glazing capacity, including special high-performance glass of 1 3/8 in (35 mm) thickness

Improves energy efficiency and acoustical properties

3 Multiple locking points and compression seals all around the perimeter

Create a tight seal against sound, air and water infiltration

4 High-quality European hardware

Operates quietly and effortlessly

5 Frame profiles with different depth

Provide flexibility for new construction and replacement applications

Ventilation in a secured position

High-quality tilt-slide hardware allows a vent position, where the top of the sash tilts toward the inside of the room, but cannot be opened from the outside, providing security.



Available colors



White



Beige



Clay

Performance summary

NAFS (PG): up to CW-PG55

Impact: up to DP80

ASTM E90 Acoustical (STC): up to STC 40; OITC 31

ASTM E84 Class A: Flame spread 0; smoke-developed 80

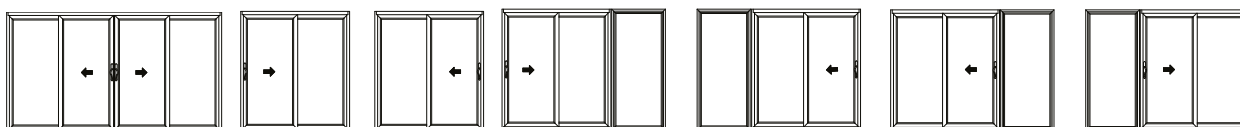
U-value: down to 0.18*

* based on simulation.

Testing of our window and door systems is ongoing. Contact your representative for the latest.



Solid color and wood-grain
foil options available



The secret is the formulation

REHAU's proprietary uPVC formulation includes above-average quantities of TiO_2 stabilizers and impact modifiers to protect against fading from solar radiation. When put through five years of weather testing in Arizona, REHAU uPVC performed better than standard vinyl.

In addition, REHAU uses a higher than average surface gloss, enhancing the ability of the windows and doors to repel dirt and retain their color for many years.





The all-around talent



Save energy with better thermal performance

Reducing energy usage is important, not just for the occupant's wallet but also on a larger scale when it comes to sustainable building. [Lower energy consumption with a good conscience – whether it's cold or hot outside.](#)

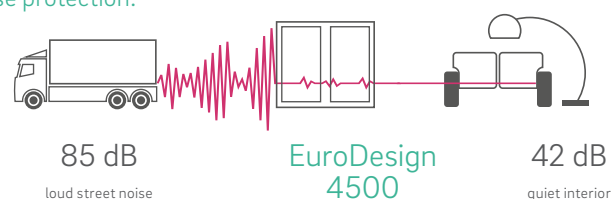
	EuroDesign 4500 windows	EuroDesign 4500 doors
U-value Standard	0.28	0.30
U-value Advanced	0.17	0.24

Minimize maintenance with ease of operation and ease of cleaning

Thanks to a high-quality, high-definition finish (HDF), smudges can be quickly and easily removed using conventional detergents. As far as maintenance, the occasional application of a quality lubricant to the moving parts, such as hinges and lock mechanisms, is all that is needed. The sealing technology assures optimal closing pressure. Due to advanced engineering and close cooperation with hardware suppliers, window and door operation is smooth and easy. [Reduce maintenance and cleaning effort to a minimum.](#)

Ensure peace and quiet with a view on mute

Noise is disturbing and over time, it is even unhealthy. [Increase occupants' feeling of well-being with previously unattained values in noise protection.](#)



Trust high levels of safety with superior security features

In combination with the appropriate hardware, EuroDesign 4500 windows and doors enhance security with multiple locking points, fusion-welded corners and steel-reinforced, multi-chambered design. [Enjoy the security you are looking for.](#)

Experience creative freedom with countless shapes and colors

EuroDesign 4500 allows for a wide choice of customized shapes, e.g., round, half round, triangular, rake-top, ellipsoidal windows. In addition, extensive design variations with brilliant colors and patterns will liven up any building interior or exterior. [Get creative with countless design options.](#)



The information contained herein is believed to be reliable, but no representations, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications or the results to be obtained therefrom. Before using, the user will determine suitability of the information for user's intended use and shall assume all risk and liability in connection therewith.