THIS SPREAD REHAU offers window solutions that are quiet and energy-efficient.

## THE PERILS OF NOISE

When you're inside a building with **high-performance** 

windows, you won't be troubled by the sounds of the world outside. But many people around the world aren't so lucky—and they may be paying a price. Researchers have found that children exposed to loud environmental noise, such as airports or roadways, over time suffer from cognitive difficulties.

suffer from cognitive difficulties. They report poorer memory, reading ability, and academic performance on standardized tests. In adults, chronic noise exposure has been linked to everything from sleep disturbance to cardiovascular disease. One study found that adults living in an area with high traffic noise were 25% more likely to report symptoms of depression. As this growing body of research makes clear, noise pollution is a real threat to health and well-being.



## High-performance windows block sound and keep interiors just the right temperature

By Margaret Poe

Trends ebb and flow.

The hot new buzzword on everyone's lips? It'll be replaced with a new one tomorrow.

The same goes for this season's "it" color or look. But one thing that won't go out of style?

Comfort.

"In this day and age, it's the numberone word," says **Bruce Brecht**, an account manager for **REHAU Window Solutions**, who has nearly four decades of experience in the building industry.

More than anything else, a demand for comfort is driving decisions in both the residential and commercial window markets, he says. Because the ultimate respite from a loud, fast-moving world is to come inside to a serene environment that's exactly the right temperature—neither too hot nor too cold.

The secret to achieving that level of comfort? A window in which every element, from the frame to the fusion-welded corners to the seal, works together to create a superior performance.

Thanks to decades of experience crafting fenestration solutions, REHAU has access to the latest developments in polymer technology. As a result, the company is constantly improving upon

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its products in search of the next great solution to build a more comfortable environment.

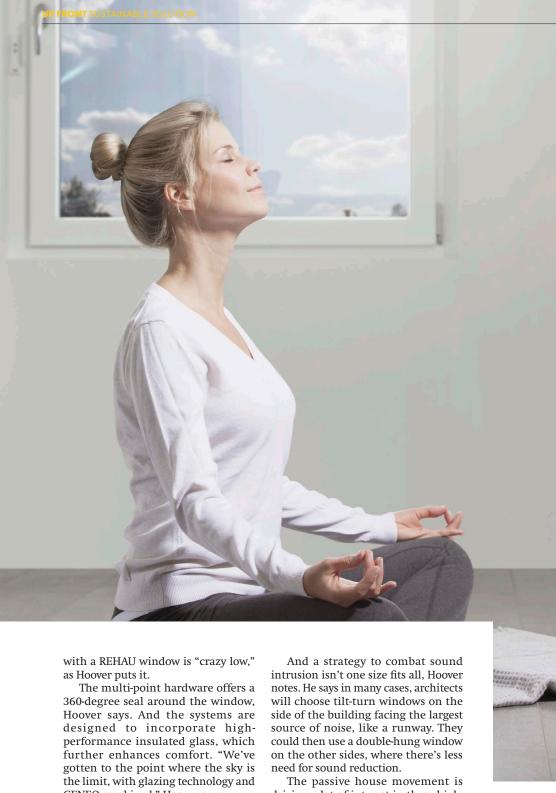
## **ONLY THE BEST**

REHAU's RAU-FIPRO™ material can be found in the GENEO® tilt-turn system, for example, and utilizes a proprietary glass-fiber reinforced formulation that substantially reduces the need for steel reinforcement. Multi-chambered window design optimizes the thermal performance, and high-performance compression-seal gaskets create a performance seal, says Randy Hoover, design and engineering manager at REHAU.

While tilt-turn windows have long been popular in Europe, U.S. architects are increasingly turning to them as they search for greater thermal performance, Hoover says. Compared with a tilt-turn window's compression seal, the sliding system in a single- or double-hung window "doesn't come close" to the same performance, he says. Thanks to these developments, the air infiltration



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## REHAU BY THE NUMBERS

0.15 U-value achievable with triple-pane GENEO tilt-turn window

U-value achievable with triplepane aluminum window

*UP TO* 50%

performance with a REHAU GENEO window, vs. comparable aluminum window

*UP TO* 55%

Reduction in installation time with GENEO window, vs. comparable aluminum window

*UP TO 25%* 

Reduction in noise with GENEO window, vs. comparable aluminum window

GENEO combined," Hoover says.

Out of the box, a GENEO window offers a seal like that of an airline window, Brecht adds. That compression seal also keeps out unwanted sound. That's essential in projects built in chaotic urban environments or adjacent to airports, rail lines, or highways, he says. High-performance windows completely block out those sounds so occupants can concentrateor sleep-in comfort.

driving a lot of interest in these highperformance windows, Hoover says. But without a tight building envelope, even the best windows won't help you meet those standards, he notes.

"If every facet of that envelope build is not up to the same standards, you're doing yourself a disservice," he says. "The ultimate thing is to make the occupants comfortable. That's really what it comes down to." gb&d