

# Cross Weather Windows Super 8

Cross Weather is dedicated to creating better windows which are made to protect every household, crossing the boundaries of problematic factors caused by weather. With 10 innovative patents and care, Cross Weather protects its customers' homes from wind, rain, sun, and noise.

Through research and development, the company is also devoted to helping customers pursue a sustainable life. Its products are created with technologies that take sustainability, nature and energy efficiency into consideration. While establishing a harmonious connection between human and the environment, Cross Weather as well aims at sharing professional knowledge with customers. Only when customers are well informed and educated can they possibly lead an actual sustainable life with the airtight windows customized based on their needs.





# Design Operation

Cross Weather's products are invented to be customized based on everyone's different living environment and daily needs. Various types of window frames and seals can be chosen to create more than a hundred combinations with multiple functions. Besides multiple ways of window openings, soundproof and leak proof features, the products' common main features are the drainage system and indoor disassembly. Even with the most basic type of the Cross Weather products, the airtight window includes opening options such as sliding, side-, button- or top-hung, to ensure the best life quality in Taiwan with sophisticated techniques.



There are often scooters and trucks passing by during the midnight in Taiwan. The traditional structure of the aluminum windows are no longer sufficient for its soundproof effectiveness. Plus, poor sleeping quality caused by long-term noise pollution can lead to health issues. That is why the Cross Weather SUPER 8 airtight windows are perfect for a noisy living environment. Its double-layered design greatly reduces noises to transfer indoors.





# Customized Airtight

Developed from the previous research experience and designed to meet the users' needs in the living environment, the latest Cross Weather SUPER 8 is a series of customized airtight floor-to-ceiling windows that include double layers, barrier-free design, and window screens with security grille. In order to solve common issues occurring in Taiwan's humid subtropical weather, such as wooden furniture deterioration, infestation of pests, and typhoon water leak, the aluminum-alloy-made structure and its embedded seals ensure the best airtight effectiveness against noises and rain.



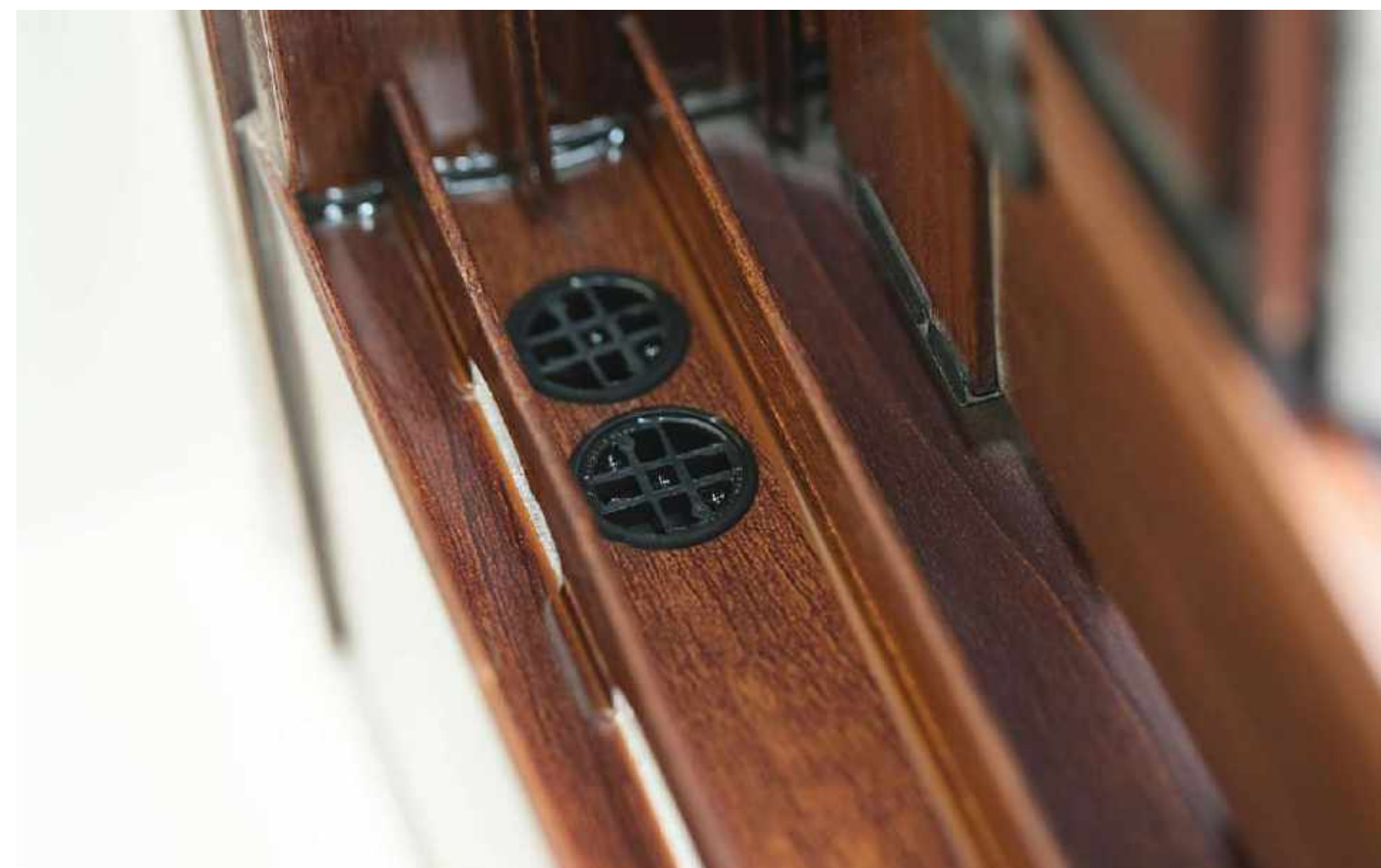
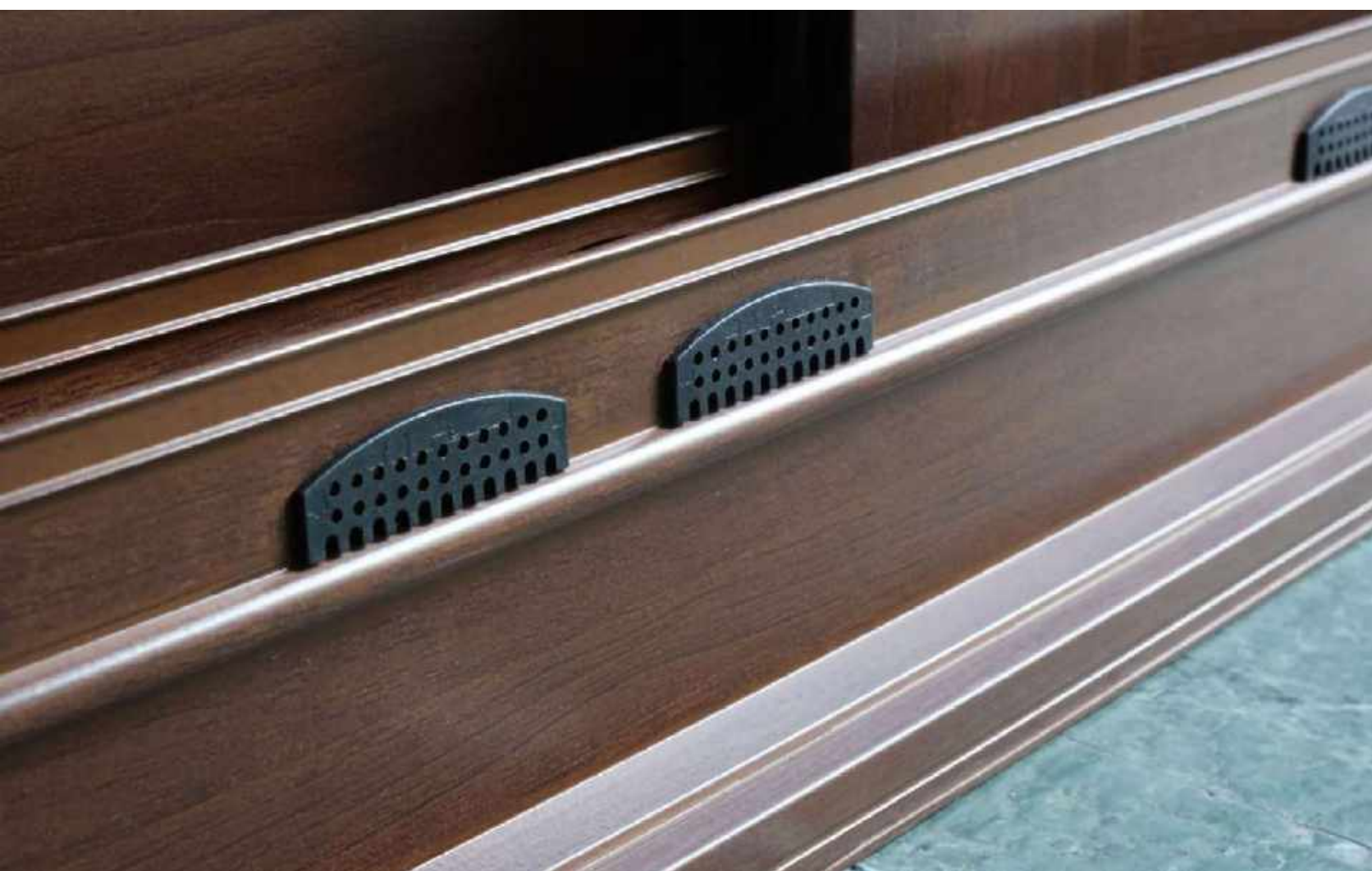
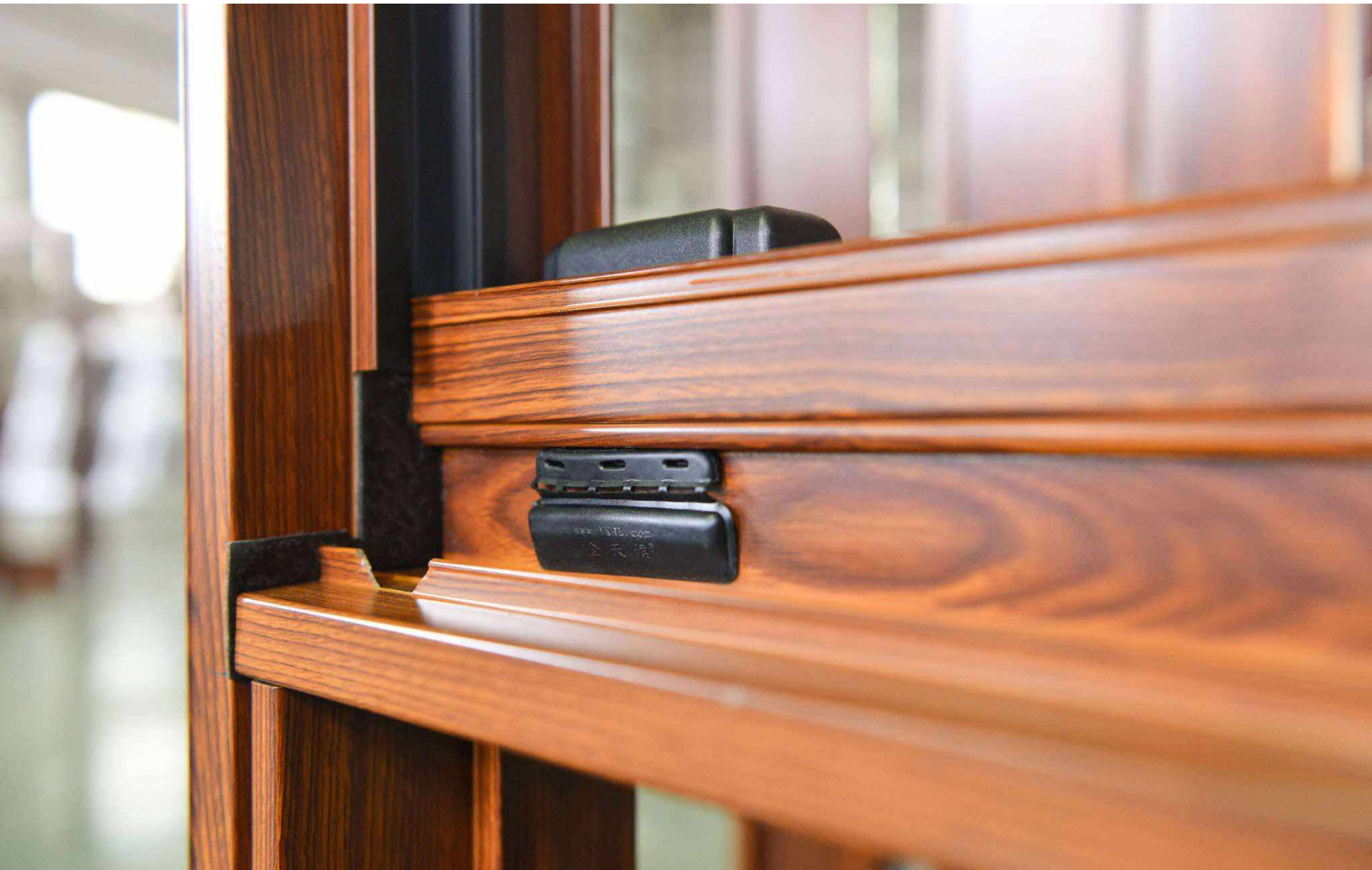
The aluminum alloy material allows for the change of color with customization, catering to both strength and looks. The multi-hollowed design for the frame structure enhances the physical load-bearing capacity. On top of increasing the strength of the frame structure, it further improves the protection against noise invasion. The internal, exclusively designed wind-blocking device with ultra-flexible blades forms the multiple air chambers, allowing wind pressure to evacuate while preventing strong wind and rain. It can effectively decrease the whistling produced by the wind pressure to reinforce the sound-proofing effect.





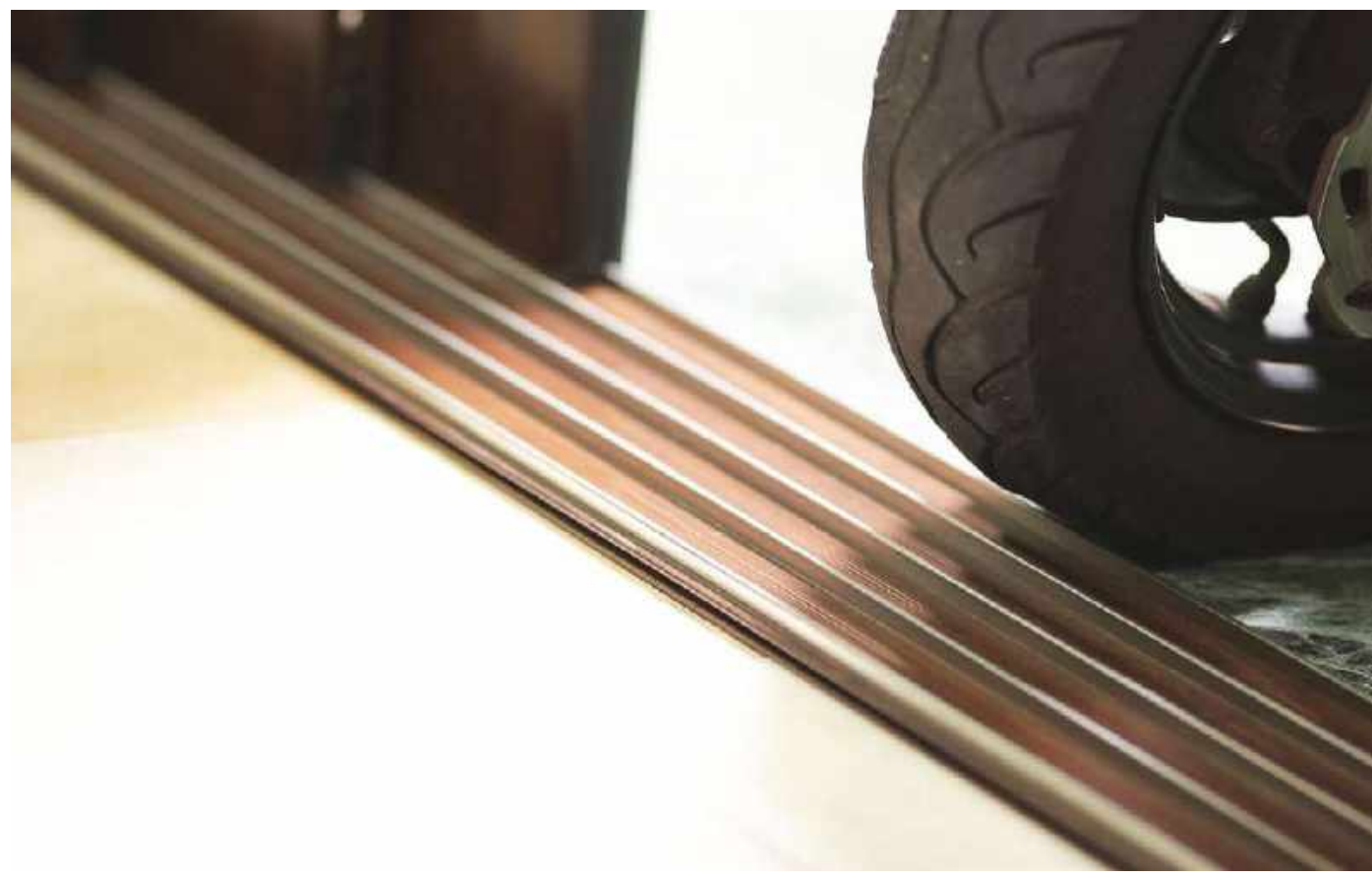
# Water Drainage Systems

The patented drainage system is designed to be one-piece and curved in shape. Applying the law of gravity, the drain valve opens up by the weight of rainwater when it gathers in the window tracks. While the wind pressure is exerted on the window, it automatically closes the valve, making sure neither wind nor rain will come into the house. In addition, the soundproof effects are perfectly achieved by the windows' "five tracks, four panes" design to make sure its double layered glass panes, both on the inside and outside, can prevent all kinds of vibration and noise pollution. With its features of double soundproof, four-layered noise reduction, customers can get to enjoy true silence at home.



Using "diversion" to replace "containment", this series of exclusively patented water drainage systems are targeted at the rainstorm climate of the island, where the window is designed with a rapid water drainage system, such that it can still rapidly drain the rainwater without backflow even when faced with strong wind and torrential rain; its anti-air pressure structural design is capable of effectively solving the concern of water seepage indoors during a typhoon. Differing from the design on the market with a height difference that will easily result in blockage, this product has reserved adequate water drainage holes on the horizontal track under the outer frame, which is capable of guiding the falling rainwater blocked by the window to flow in, and then rapidly drain the rainwater outdoors via the water-drainage channel. The rapid water-drainage channel with one-piece water-drainage valves and the unique arcs is capable of rapidly draining the rainwater to the outdoor regardless of the amount of water, thereby ensuring household safety and the intactness of the interior decoration; there will be no more need for cloth wringing and stuffing towels throughout the night when the rainstorm hits, no matter how big the rain and the wind are. The valve will be automatically closed through the utilization of the pushing force caused by the wind pressure, fitting tightly to the horizontal surface to accomplish a sealed effect, so that neither rain nor wind can get in. Moreover, it will not malfunction easily and can be replaced quickly.



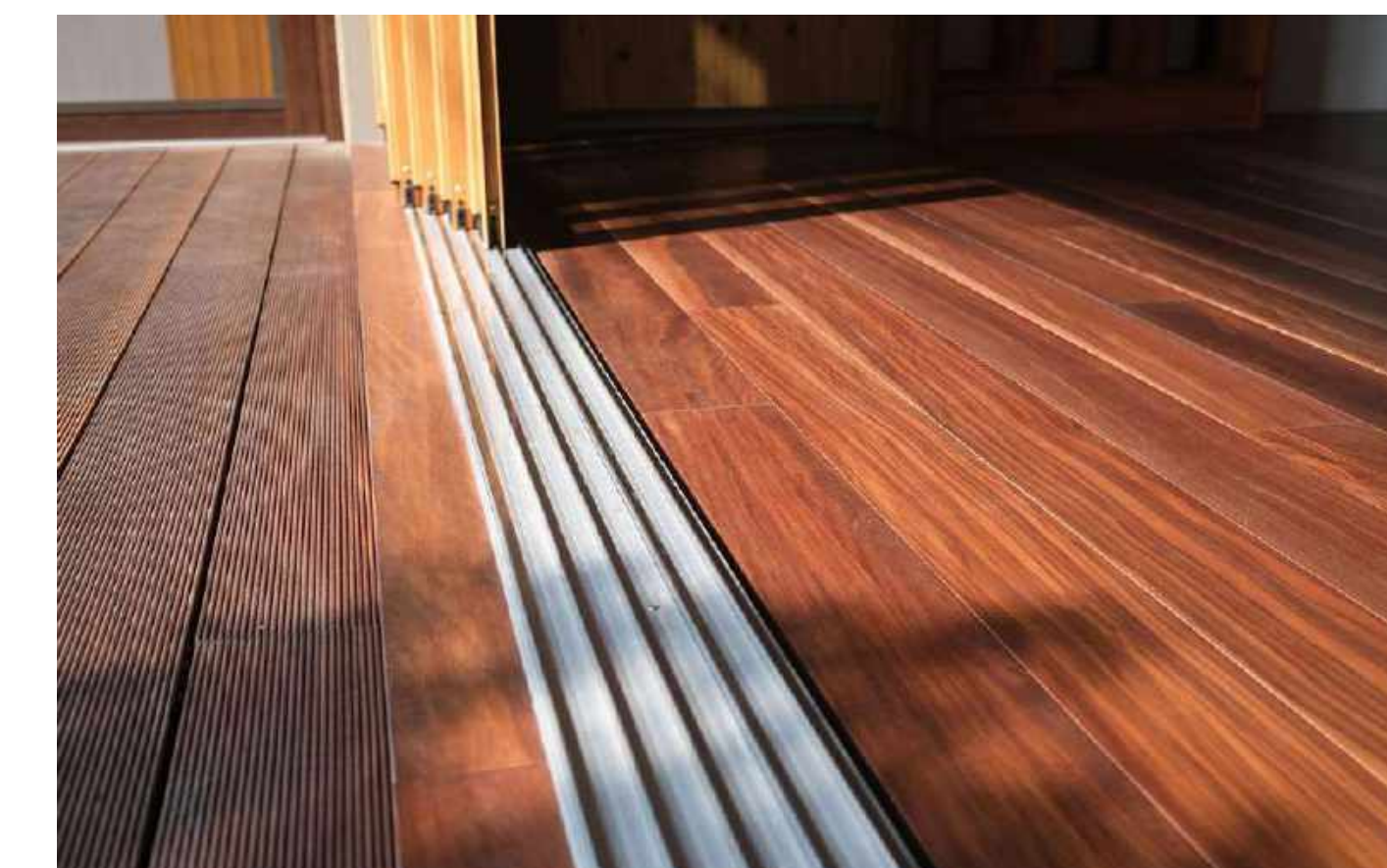
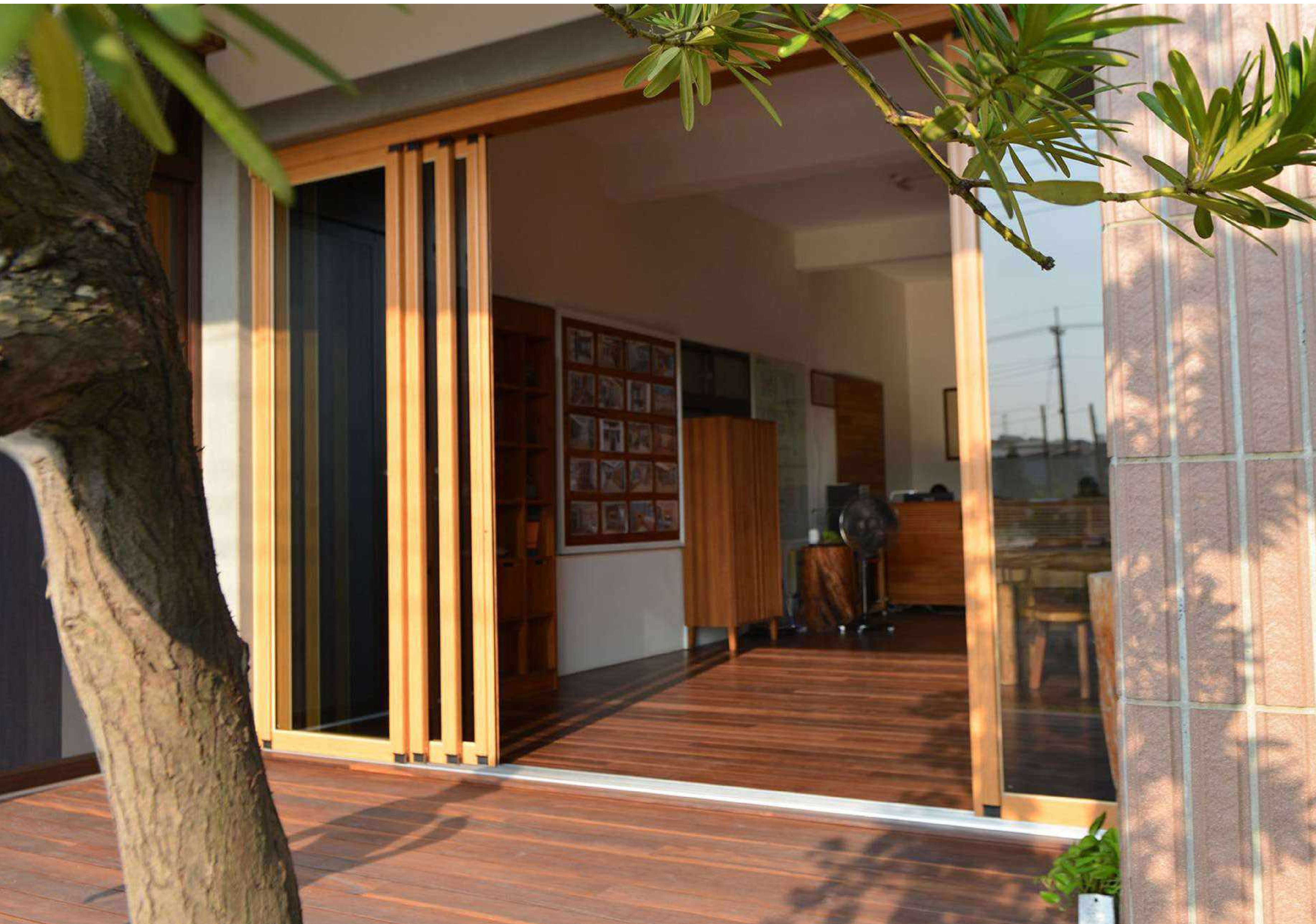


# Barrier-Free

The SUPER 8 window also offers household safety and daily convenience with its barrier-free feature, high load capacity, and indoor disassembly. Unlike the common design in which a floor-to-ceiling window track installed on the flooring surface is an obstacle often making one stumble, SUPER 8 window's embedded tracks ensure wheels pass through freely and easily. Its five stainless steel tracks allow at most 10 window panes to be installed. With its adjustable double bearing wheels design, it is easy to have a panoramic view when the panes are smoothly pushed aside. Furthermore, the disassembly is designed to be done both inwards and outwards, allowing installation from indoor. Different from the traditional structure that requires certain order, it not only makes the installation, disassembly and maintenance easier, it also prevents window panes from falling which could cause accidents.







The SUPER 8's big sized floor-to-ceiling windows help the interior to transit flawlessly into the outdoor open space, extending the spatial perception larger than it is with introduction of more natural light, fresh air, and the usage of space becomes more flexible. Its patented window tracks can be installed beforehand to make sure it's even to the flooring level, or it can be directly installed on the floor with just 1.5 cm height. Either way would meet the accessible facilities regulations, which have specified that the height differences of all the related designs have to be within 0.5 to 3 cm. The common wheel chair has a width of 75cm and a length of 120cm, and the usual accessible path has a width of at least 90 cm. Yet, the turning diameter width is about 150 cm. Thus, a single-leaf hinged door is more inconvenient for wheelchair users compared to the sliding doors. Thus, the window equipped with high-load-capacity adjustable double bearing wheels and industrial-use non-corrosive fiber-reinforced plastic (FRP) allows easier use for our customers, as well as dividing the indoor and the outdoor in just one single push. Its airtight and watertight features makes the division perfectly soundproof, suitable for balcony and front entrance patio.





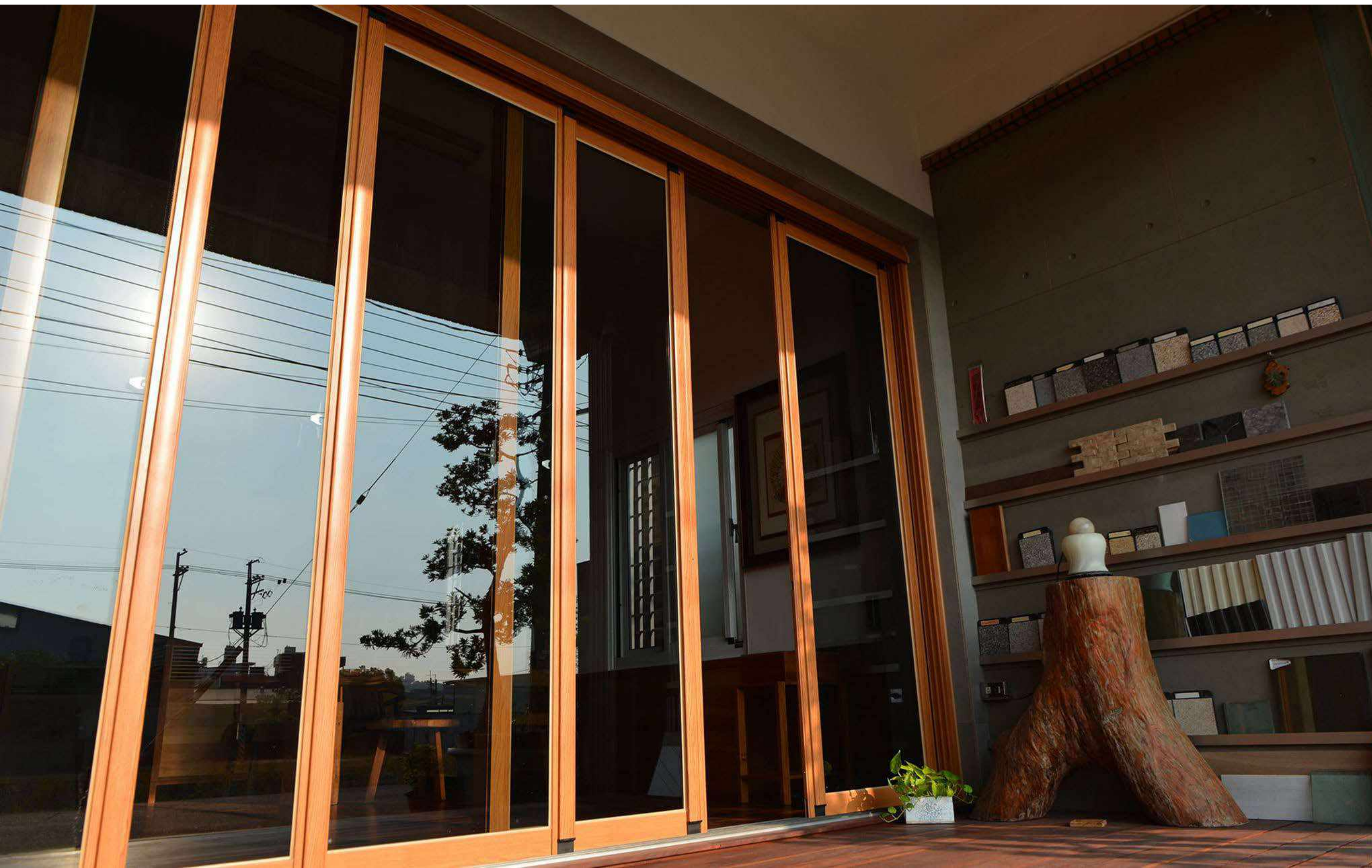
# Green Building

On top of that, its insulated double-paned window design perfectly keeps the heat outside. Its reinforced airtight and watertight features reduce airconditioning's electricity waste during summer. Beside ensuring its practical functions, the design also covers customers' needs to fit the window in its living space according to the style. Multiple options for the window frames ,such as anodization, coating, wooden textures, are offered to combine with options like single-layer or multiple layer, various seals options and different pane materials, creating a safe, customized airtight window that is pleasing to the eye and utilitarian for daily living. What's more, the design is modularized and the window frames are standardized. This way, different types of windows can be interchangeable. While changing different frame materials, there is no need to damage the wall or reinstall the window structure. Cross Weather also applies recyclable safe green building materials and environmentally friendly aluminum alloy to improve energy efficiency.



The window frame is made of super-elastic and sound-insulating air-tight tape, conforming to the Japanese Automotive Air-Tight Tape Grading Level. In addition, it is not only a non-toxic and recyclable material but also carries the features of smoothness, being easy-sealing, non-deformation, weather resistance, and pollution resistance.

In contrast, the concealed design integrated inside the frame is capable of reducing the hardening and embrittlement from exposure to the sun and rain, thereby decreasing the replacement frequency of the materials. The thoughtful fast-removal and fast-replacement planning surmount the malfunctioning normality and the irreplaceable defect of existing technologies. The inner frame has adopted the wrapped guide block design to block off wind and rain, together with the patented inner frame material design, where 2 mm thick ultra-adhesive water-proof non-woven fabric is used to tightly wrap around the gaps between the four corners, such that the rainwater and wind pressure from outdoor are unable to penetrate to the indoor via the isobaric boundary. This enhances the window's water tightness, blocking off rainwater and noise, as well as maintaining ease and smoothness when opening or closing the inner frame.







## Sustainability & Benefits to Society

In order to pursue an eco-friendly and sustainable living, Cross Weather aims at providing a service of thorough planning beforehand and flexibility to combine different functions of the products. Responding to passive design approaches in green buildings, Cross Weather applies soundproof features, insulation, and sustainable materials to practice a simple sustainable lifestyle. In addition, the windows installed for indoor ventilation are arranged according to the building orientation.

Since in Taiwan there is southwest monsoon in summer and northeast monsoon in winter, buildings placed orienting to the west or east should reduce sun exposure on these sides while having most of its windows on the south side. A few small windows on the northside can guide the ventilation while letting less cold humid air into the house. Wind thus circulates diagonally indoors, coming from one side and leaving from another corner.