

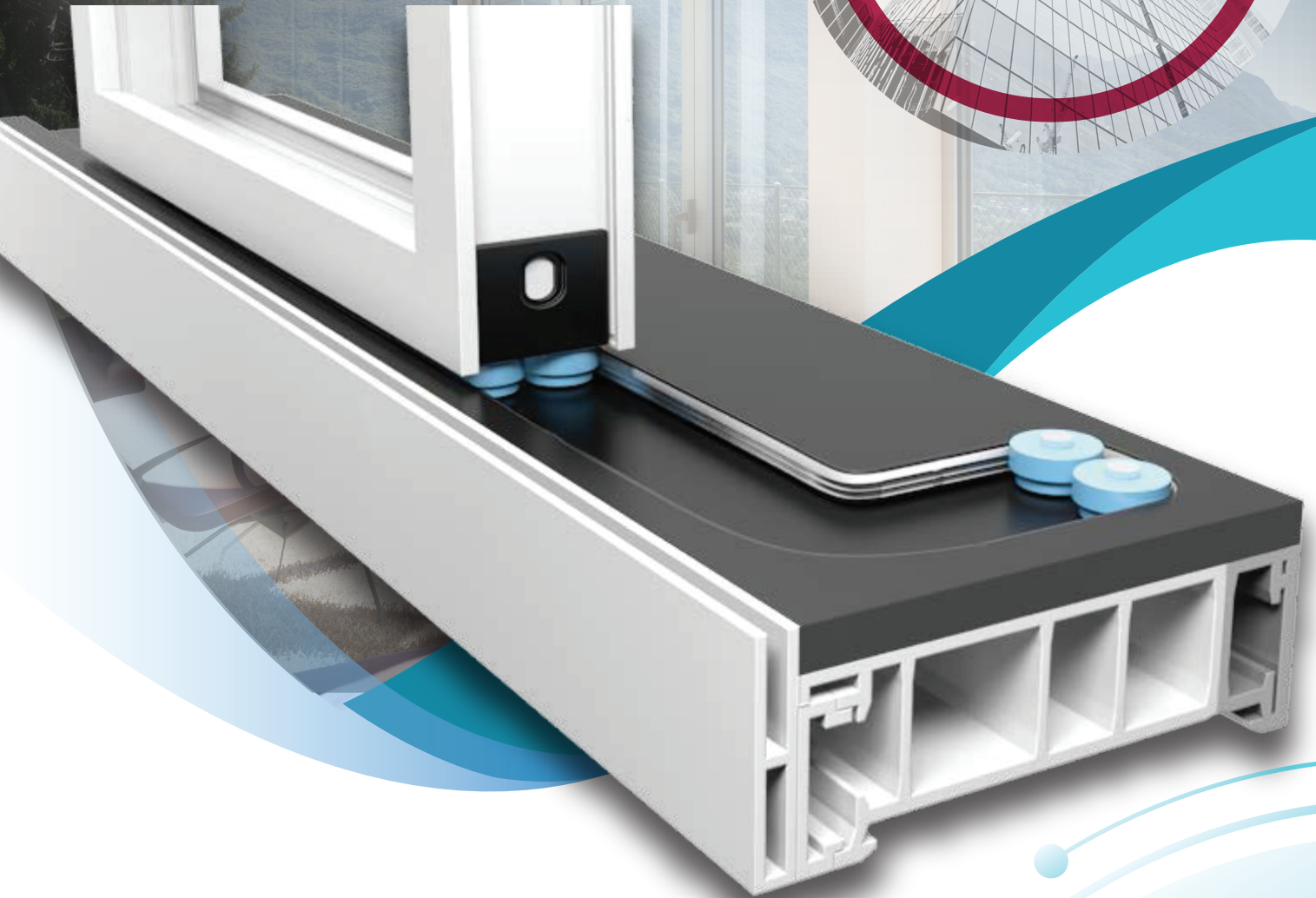
“

“When you switch your thoughts to 90 degrees,
everything in the window evolves”

”



HOMEPACK
SYSTEM WINDOW



**World's First,
New Evolution of System Window
with Air-tightness '0'**

New concept system window created by 100%
original technology of Nabsystem Homepack
NDS(New Horizontal Driving System)



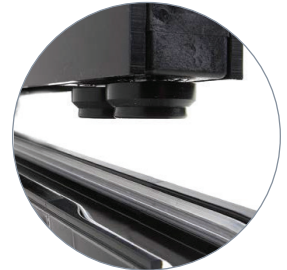
NABSYSTEM
SYSTEM WINDOW HOMEPACK

Changed the criteria for system windows, Complete and New Window Paradigm

By rotating the window wheel 90 degrees, which was only facing downwards, it realized perfect adhesion rate of windows and '0' of Air-tightness performance.



Front view of wheels and rails intersecting



Side view of wheels and rails

HOMEPACK SYSTEM

The system window Homepack of Nabsystem, which implements both heat and soundproofing as well as fine dust prevention by realizing soundproofing and windproofing near perfection through patented horizontal driving window system.
HOMEPACK(Parallel Sliding System)

System windows that were applied only to high sound insulation, thermal perfusion, and high-priced specifications Homepack now leads the popularization of system windows with NDS technology.

NDS (New Horizontal Driving System) refers to a new wheel system developed with R&D funds supported by the Ministry of Trade, Industry and Energy as a 100% original technology for Nabsystem. Without complex hardware, windows are attached to window frames, rubber gaskets provide complete air-tightness, and anyone with disabilities or the elderly can open and close windows light and smooth.

Implement fault-free system windows that open and close at the end of the building's life Homepack system maximizes user convenience with 100% source technology of Nabsystem

The Homepack System Window enables both open window technologies to facilitate natural ventilation. Traditional system windows do not open one door, resulting in low natural ventilation. Another technology of Homepack's NDS (New Horizontal Driving System) was applied to create both open window and window technology while completely blocking the gap.

Reduce energy costs by up to 50%

The zero-adhesion of windows significantly reduces energy costs by reducing loss of cooling and heating by up to 50 percent compared to normal windows.

Complete blocking of fine dust and air pollution

The Homepack System window implements airtight zero to completely block the inflow of contaminated materials from outside. It is a useful product especially for the elderly and children who are vulnerable to fine dust.



Fine dust blocking



Eco-friendly materials



Air-tightness zero



Solar power



Fine dust



Cold wind



Flurry of wind

Homepack system window that protects the room from various pollutants such as fine dust and yellow dust and external noise Zero '0' air-tightness protects the interior space from any adverse conditions.

Complete blocking of rain and wind with a solid structure

The upper and lower rail applications are designed to completely block rain and wind with a solid structure that can withstand any situation, such as gusts and earthquakes.



Excellent noise-blocking capability

The structural rigidity of the home pack completely blocks loud noise outside such as on the side of the road, thereby relieving stress caused by noise.

The System Window Homepack is a new P/S system that completely blocks gaps (Air-tightness '0') that have been a chronic problem with windows by developing and applying the world's first wheel (NDS: New Horizontal Driving System) that runs on walls.

Homepack single-window NAB177AP

Homepack single-window implements an efficiency rating (performance) that is superior to general single-window, which has both advantages of double-windowing and high economic feasibility of single-window construction. Through efficient design, the construction period can be shortened through eco-friendly construction as well as eliminating various environmental pollution caused by asbestos removal.



- All interior spaces are pleasant and safe with a solid safety railing that covers all visibility.
- Homepack single-window achieve first-class air-tightness with triplex glass.
- With a systemized structure, the Homepack single-window facility alone has the effect of expanding the interior space by more than 200mm.
- Exclusive to high-end houses and expandable apartments, high-end system single-window with excellent air-tightness and insulation performance as well as wide views and openness
- It is 177mm thick and can maximize the area of the interior space.
- The exterior is based on a durable ceramic coating, and the inner and outer colors are freely chosen.
- The best wind pressure/load-bearing performance was realized with pure domestic technology.
- It has semi-permanent durability with a simple rail structure.



Homepack double window NAB233AP



The Homepack Double Window is a highly efficient window system that is easy for anyone to use with optimized functions, and boasts superior efficiency ratings (performance) such as high insulation and excellent soundproofing through perfect air-tightness. It not only maximizes the advantages of existing double windows, but also implements high insulation compared to double windows on the market. Homepack is a high-efficiency green energy eco-friendly window that enables low-cost construction through the technology know-how of the Nabsystem.

- Homepack combines a sliding window of 100mm and an NDS system of 133mm to provide the highest level of air-tightness and insulation.
- Homepack double window is a high-insulation system window that is cheaper than conventional double window.
- It is a system window optimized for the rapidly changing climate environment with 100% Korean technology and production.
- At the customer's request, custom-made products can be customized for convenience such as sliding on both sides or one side.
- Homepack is leading the environmental protection with high-efficiency green energy products.
- The exterior can be applied in a variety of colors with aluminum.
- The exterior is based on a durable ceramic coating, and the interior and exterior colors are freely available.
- We realized the best wind pressure and load-bearing performance with 100% Korean technology.
- It has semi-permanent durability with a simple rail structure.



Hompack Curtain Wall NAB ACW 180



Hompack curtain wall, which takes into account the design wind pressure of the residential building, is applied with an insulation bar, which embraces the structural functions that the outer wall should have while boasting high insulation performance. In addition, it provides a pleasant environment while maximizing lighting from various external environments such as wind, rain, and snow.

- Hompack curtain wall maximized factory manufacturing to minimize misconstruction in the field.
- The structure is optimized for rapidly changing weather conditions by applying insulation bar.
- When constructing a 180mm curtain wall, Hompack 177mm single window can be applied according to the customer's choice.
- Hompack is leading the environmental protection with high-efficiency green energy products.
- The interior and exterior can be applied in a variety of colors with aluminum.



Nabsystem Patent and Test Report

window, as well as fine dust and thermal insulation at once with '0' air-tightness



• Technical patents

- Patent No. 10-1431308

The device for the door behavior of the window

- Patent No. 10-1246409

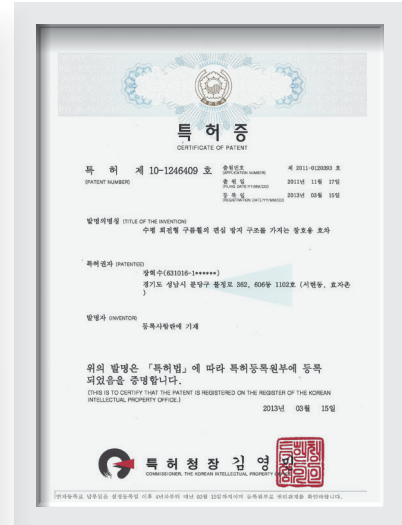
A wheel of sliding windows and doors having preventing eccentric structure of horizontal rotation wheelW

• Test report and certificate

- Test report 1 : 177mm single window. Class 1.
- Test report 2 : 233mm double window. Class 1.
- Test report 3 : 180mm curtain wall. Class 1.
- Report of efficiency management equipment 1 : (177mm Double Column Sliding)
- Report of efficiency management equipment 2 : (233mm Double Column Sliding)
- Environmental display certificate



<Technical patents 10-1431308>



<Technical patents 10-1246409>



<Test report 1 : 177mm single window >



<Test report 2 : 233mm double window >



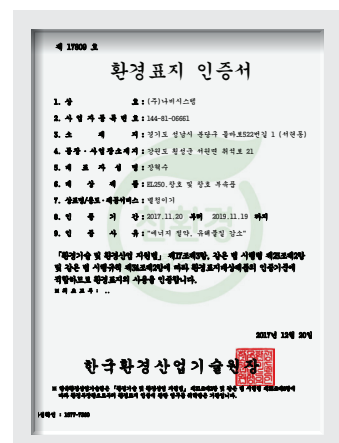
<Test report 3 : 180mm curtain wall >



<Report of efficiency management equipment>



<Report of efficiency management equipment>



<Environmental display certificate>

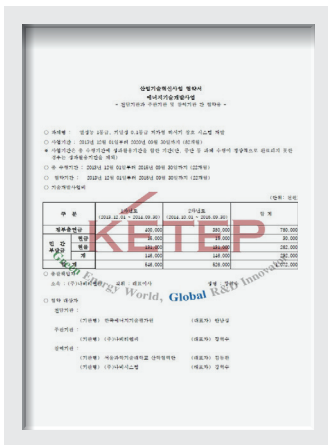
Nabsystem Certificate



- **Status of General Products Registration by Public Procurement Service**
 - Designation period: DEC 24, 2015- DEC 23, 2021
 (Registration date: APR 15, 2015)
- **Energy Demand Management Core Technology Project, GENIE**
 - Project No. 201320201024
- **ISO Certificate**
 - ISO 9001:2015
 - ISO 14001:2015
- **KS Product Certificate**
 - KS Product certification by KCL
- **Certificate of Quality**
 - Q mark certification by KCL



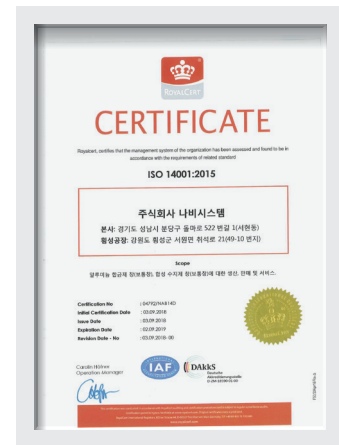
〈Status of General Products Registration by Public Procurement Service〉



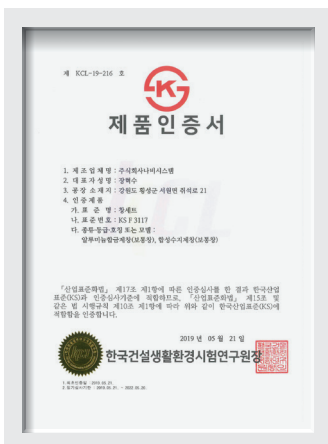
〈Convention on the Innovation of Technology〉



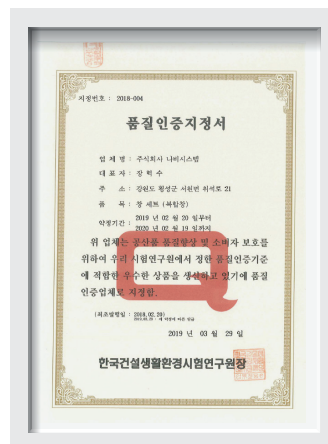
〈ISO 9001〉



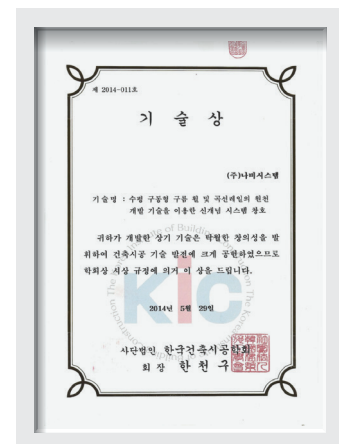
〈ISO 14001〉



〈Product certificate〉



〈Q mark quality certificate〉



〈Technical Award of KIC〉



Sliding System (Single Window) NAB177AP

It is possible to solve double window equipment burden by installing single window.



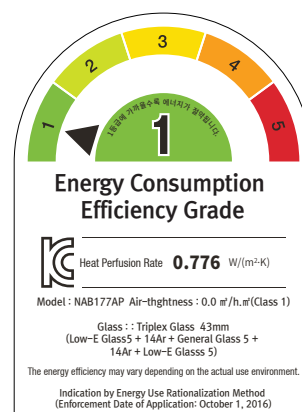
Superior price competitiveness: 50-60% compared to enterprise system windows

Highest performance competitiveness: Air-tightness of 0.0 and heat convection rate meets passive house criteria

Realize class 1 of air-tightness with single window (NAB177AP Single window)

- It is an advanced single-window model that improves wind-resistant pressure performance, provides structural stability, and delivers double-window performance.
- This model is a single structure with PVC and aluminum composite material and is highly airtight, insulating, and durable.
- This model is optimized for schools, government offices, and apartments, luxury villas, houses, and commercial buildings.

| Form and Model | | | | | | |
|------------------------------|--|---|--|---|---|---|
| | NAB177AP Sliding (Fixed+Sliding) | | NAB177AP Double Sash Sliding (Upper Fixation) | | NAB177AP Double Column Sliding (Upper Fixation) | |
| Contents | | | | | | |
| Class | 1 | 2 | 1 | 2 | 1 | 2 |
| Air Tightness (m3/m2·h) | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Heat Perfusion Rate (W/m2·K) | 0.776 | 1.328 | 0.776 | 1.328 | 0.776 | 1.328 |
| Glass | 43mm(Double LOW-E, Argon Gas) 5le+14ar+5cl/ Semi-Hardening +14ar+5le | 39mm(Double LOW-E) 5le+12a+5cl/ Semi-Hardening +12a+5le | 43mm(Double LOW-E, Argon Gas) 5le+14ar+5cl/ Semi-Hardening +14ar+5le | 39mm(Double LOW-E) 5le+12a+5cl/ Semi-Hardening +12a+5le | 43mm(Double LOW-E Argon Gas) 5le+14ar+5cl/ Semi-Hardening +14ar+5le | 39mm(Double LOW-E) 5le+12a+5cl/ Semi-Hardening +12a+5le |





Sliding System (Double Window) NAB233AP

Maximize insulation performance with minimum glass specifications High-efficiency system windows that maximize complete air-tightness

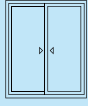

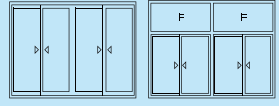


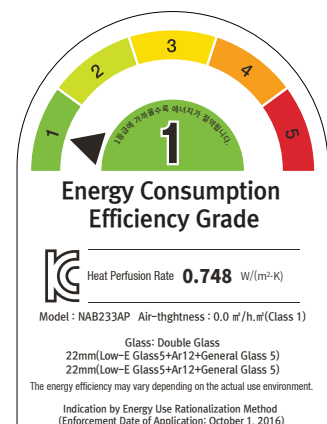
Superior price competitiveness: 50-60% compared to enterprise system windows

Highest performance competitiveness: Air-tightness of 0.0 and heat convection rate meets passive house criteria

Maximize insulation performance with minimum glass specifications (NAB233AP Single window)

- Homepack maximized energy efficiency with minimum glass specifications.
- A double-glazed structure with a combination of aluminum+PVC material provides high air-tightness, insulation, and economy.
- This model is optimized for schools, government offices, and apartments, luxury villas, houses, and commercial buildings.

| Form and Model | |  | |  | |  | |
|------------------------------|---------|---|-------------------------|---|-------------------------|---|-------------------------|
| Division | | NAB233AP (Fixed+Sliding) | | NAB233AP Double Sash Sliding (Upper Fixation) | | NAB233AP Double Column Sliding (Upper Fixation) | |
| Class | | 1 | 2 | 1 | 2 | 1 | 2 |
| Air Tightness (m3/m2·h) | | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Heat Perfusion Rate (W/m2·K) | | 0.748 | 1.211 | 0.748 | 1.211 | 0.748 | 1.211 |
| Glass | Outside | 22mm(LOW-E, Argon Gas) 5cl+12ar+5le | 22mm(LOW-E) 5le+12a+5le | 22mm(LOW-E, Argon Gas) 5le+12ar+5le | 22mm(LOW-E) 5le+12a+5le | 22mm(LOW-E, Argon Gas) 5le+12ar+5le | 22mm(LOW-E) 5le+12a+5le |
| | Inside | 22mm(LOW-E, Argon Gas) 5cl+12ar+5le | 22mm 5cl+12a+5cl | 22mm(LOW-E, Argon Gas) 5cl+12ar+5le | 22mm 5cl+12a+5cl | 22mm(LOW-E, Argon Gas) 5cl+12ar+5le | 22mm (5cl+12a+5cl |



Status of General Products Registration by Public Procurement Service

Curtain Wall / Gallery Window / Insect Screen



| No. | Division | Identification Number | Contents | Environmental Certificate Period | Energy Efficiency Class | Test Result | | Purpose |
|-----|---------------------|-----------------------|---|----------------------------------|-------------------------|------------------------|---------------------|--|
| | | | | | | Class of Air-Tightness | Heat Perfusion Rate | |
| 1 | Metal-making Window | 23579318 | Insulation Curtain Wall/Fluorine Resin Twice NAB-ACW-180-43LE, 180mm | 2019.01.03~ 2021.01.02 | 1 | 1 | 0.823 | Insulation, Windproof, Airtight, Soundproof, Ventilation, Lighting |
| 2 | Metal-making Window | 23575596 | Gallery Window/Fluorine Resin Twice NAB-AW-AG01, 100mm | — | | | | Ventilation, Lighting |
| 3 | Metal-making Window | 23579319 | Insect Screen/Fluorine Resin Twice NAB-AW-SC01, 15mm | — | | | | Insect Repellent |

Curtain Wall



Gallery Window



Insect Screen





HOMEPACK

Zero Air-tightness Allows
Both Heat and Soundproofing
as well as Fine Dust,
Implement All-in One of
The System Windows

NABSYSTEM
SYSTEM WINDOW **HOMEPACK**



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