



**REHAU**<sup>®</sup>

Unlimited Polymer Solutions



**REHAU**  
QUALITY

ENERGY  
EFFICIENCY

## ENERGY EFFICIENCY IN PERFECTION

ONLY THE BEST FOR THE FUTURE – THE NEW GENE<sup>®</sup> WINDOW SYSTEM MADE FROM HIGH-TECH MATERIAL RAU-FIPRO<sup>®</sup>

# GENEO® WINDOW PROFILE SYSTEM

BEST IN CLASS ON THE MARKET! GENE0® IS MORE FUTURE-ORIENTED – TO HELP YOU MAKE THE RIGHT DECISION



First class, when it comes to energy efficiency

**ACHIEVES  $U_w = 0.73 \text{ W/M}^2\text{K}$**

## GENEO® MD plus, Passive House standard

$U_g$  value = 0.5 W/m<sup>2</sup>K  
 $U_i$  value = 0.91 W/m<sup>2</sup>K  
 $U_w$  value = 0.73 W/m<sup>2</sup>K \*

Calculated savings \*\*

### Savings using GENE0® MD plus:

Gas: 3,268 kWh / annually  
CO<sub>2</sub> reduction: 600 kg / annually  
CO<sub>2</sub> reduction: 21,000 kg\*\*\*  
Energy saving: 16%

## GENEO® MD plus, Suitable for Passive Houses

$U_g$  value = 0.6 W/m<sup>2</sup>K  
 $U_i$  value = 0.91 W/m<sup>2</sup>K  
 $U_w$  value = 0.80 W/m<sup>2</sup>K \*

Calculated savings \*\*

### Savings using GENE0® MD plus:

Gas: 2,614 kWh / annually  
CO<sub>2</sub> reduction: 480 kg / annually  
CO<sub>2</sub> reduction: 16,800 kg\*\*\*  
Energy saving: 15%

Thanks to their technological advances and their performance characteristics, windows constructed from GENE0® profiles put all previous window systems in the shade.

- The first fully reinforced window profile system
- Constructed from the high-tech material RAU-FIPRO®
- The most energy-efficient profile for windows ranging from low energy houses (e.g.,  $U_w = 1.1 \text{ W/m}^2\text{K}$ ) to passive solar house standards (e.g.,  $U_w = 0.73 \text{ W/m}^2\text{K}$ ).
- The best possible level of sound insulation without steel reinforcement, achieving previously unattainable values (glass 50 dB =  $R_{w,P} 47 \text{ dB}$ ) for sound insulation class 5 – and including optimal thermal insulation.
- Break-in protection up to resistance class 3. Without steel reinforcement, resistance class 2 – including optimal thermal insulation.
- High levels of investment security by meeting current and foreseeable Building Regulation standards<sup>1)</sup>, thus ensuring long-term value for your property.

<sup>1)</sup> Energy saving regulations from the construction ministry.

**Save your energy! There is no better way to change your energy budget to meet future needs.**

## GENEO® MD plus, surpasses the latest Part L 2010 regulations <sup>1)</sup>

$U_g$  value = 1.0 W/m<sup>2</sup>K  
 $U_i$  value = 0.1 W/m<sup>2</sup>K  
 $U_w$  value = 1.1 W/m<sup>2</sup>K \*

Calculated savings \*\*

### Savings using GENE0® MD plus:

Gas: 1,961 kWh / annually  
CO<sub>2</sub> reduction: 360 kg / annually  
CO<sub>2</sub> reduction: 12,600 kg\*\*\*  
Energy saving: 13%

GENEO® profiles allow the most energy-efficient windows in their class to be created. They create the comfortable environment you have always wanted.

The fully reinforced profile design requires no steel, thus eliminating thermal bridges through which valuable energy can be lost. The best possible break-in protection and previously unattained sound insulation are included.

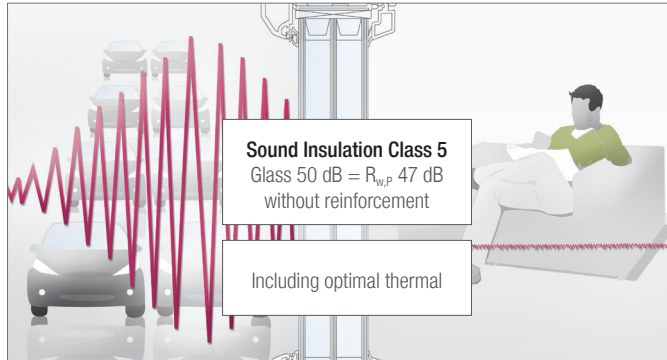
\* Window size: 1230 × 1480 mm.

\*\* Based on: timber/plastic windows from the 1970s with an approximate  $U_w$  value of 3.0 W/m<sup>2</sup>K and a typical detached house with 120 m<sup>2</sup> of floor space and 25 m<sup>2</sup> of total window area.

\*\*\* Based on lifespan of window being 35 years as indicated in the BRE Green Guide  
Heating method: Gas

# WINDOWS MADE OF GENE<sup>®</sup> PROFILES

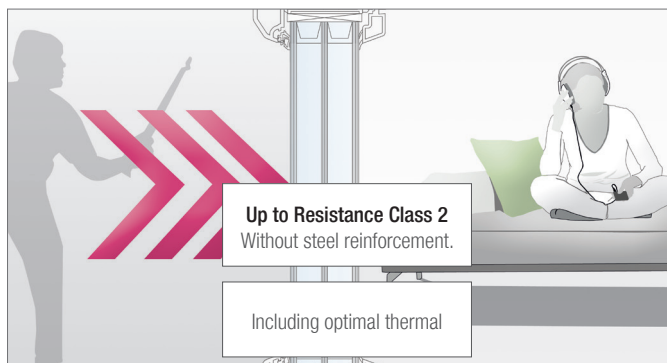
## SOUND INSULATION AND BREAK-IN PROTECTION – INCLUDING HIGH-TECH



Sound insulation: Enjoy the relaxing quiet.

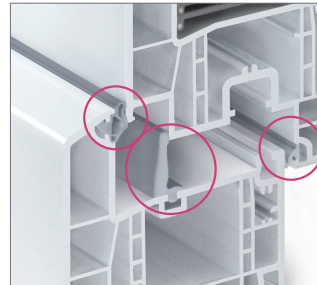
Sound insulation class	Traffic density	Distance between the home and the center of the street	Recommended window sound insulation value*	Glass	R <sub>w,p</sub>
1	Residential street, 1,500 vehicles/day	3-12 m	28-29 dB		
2	Residential street, 1,500 vehicles/day	12-5 m	30-34 dB		
3	Federal highway, 30,000 vehicles/day	150-80 m	35-39 dB		
4	Federal highway, 30,000 vehicles/day	80-30 m	40-44 dB	40 dB	42 dB
5	Freeway, 50,000 vehicles/day	70-40 m	45-49 dB	50 dB	47 dB

\* Noise level which the window can dampen.



Break-in protection: For security in every situation.

- Basic security:** Basic security is adequate for windows which are difficult to access.
- Resistance class 1:** Low protection against the use of levers.
- Resistance class 2:** Improved protection against the use of simple tools such as screwdrivers, pliers and wedges.
- Resistance class 3:** Best possible protection against the use of heavy tools such as a crowbar.



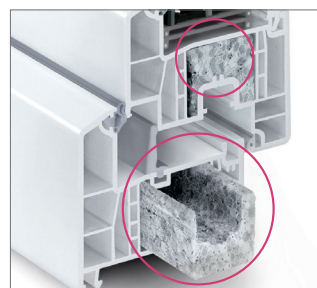
### Centre seal

With its three surrounding seal levels, the GENE<sup>®</sup> window profile offers the best possible insulation characteristics. The highly elastic seal material which is resistant to continuous stress guarantees a long service life.



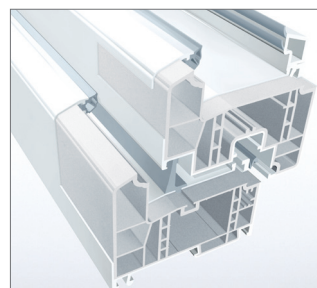
### Sleek design

The profile design offers an elegant, sleek appearance (115 mm) for even the largest elements. Combined with REHAU's innovative adhesive technology, even floor-length windows can be created with the necessary degree of stability.



### Optimized thermal insulation

GENE<sup>®</sup> possesses functional chambers which can be employed for a variety of purposes. For example, the GENE<sup>®</sup> MD plus uses thermal modules to optimise insulation properties and provide a thermal insulation plus.



### RAU-FIPRO<sup>®</sup> profile core

The profile core made from the high-tech material RAU-FIPRO<sup>®</sup> gives GENE<sup>®</sup> window profile systems maximum stability.

# GENEO® PROFILE SYSTEMS

FOR WINDOWS WITH A FUTURE

RAU-FIPRO® – THE INNOVATIVE, HIGH-TECH MATERIAL



## 1. Unbeatably stable

RAU-FIPRO® – represents high-tech in combination with an innovative material formulation. The highest level of profile core stability sets new benchmarks for window profile systems.

## 2. Uniquely innovative

With a high-tech fibre composite material, this branch-specific novelty sets an example. After aircraft construction and Formula 1 design, fibre composite materials now also offer the best performance in the area of window design.

## 3. Highest quality

The best initial materials combined with the highest processing benchmarks result in the outstanding quality and long service life of profiles made from RAU-FIPRO®. And this under even the highest stress levels.

### An overview of all properties:

#### GENEO® window profile systems

Construction width:	86 mm / 6 chamber system
Thermal insulation:	$U_i$ up to 0.85 W/m <sup>2</sup> K (MD plus)*
Sound insulation, sound insulation class (VDI 2719):	Up to sound insulation class 5** (Glass 50 dB = $R_{w,P}$ 47 dB)
Break-in protection	Up to resistance class 3 Up to resistance class 2 (without steel)
Surface:	High value, smooth, sealed and easy maintenance
- Ideal for low energy houses and energy conscious renovation	- Up to the passive solar house standard - For upscale home construction

\*  $U_i$  = Profile thermal insulation value

\*\* Including optimal thermal insulation

**Compare price and performance and you will choose windows made from GENEO® profiles.**

**Please get in touch with us to find out more.**