



**REHAU®**

Unlimited Polymer Solutions



## 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>

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**Construction**  
Automotive  
Industry



# 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

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

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  $50 \text{ dB} = R_{w,P} 47 \text{ dB}$ ) 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 EnEV 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, Passive solar house standard

$U_g$  value =  $0.5 \text{ W/m}^2\text{K}$

$U_f$  value =  $0.91 \text{ W/m}^2\text{K}$

$U_w$  value =  $0.73 \text{ W/m}^2\text{K}$  \*

Calculated savings \*\*

Annual savings using GENE0®  
MD plus:

Crude oil: 1,341 liters

Euros: 1,006.00 Euros

CO<sub>2</sub> reduction: 3,621 kg

## GENEO® MD plus, Suitable for passive solar houses

$U_g$  value =  $0.6 \text{ W/m}^2\text{K}$

$U_f$  value =  $0.91 \text{ W/m}^2\text{K}$

$U_w$  value =  $0.80 \text{ W/m}^2\text{K}$  \*

Calculated savings \*\*

Annual savings using GENE0®  
MD plus:

Crude oil: 1,299 liters

Euros: 974 Euros

CO<sub>2</sub> reduction: 3,507 kg

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

$U_g$  value =  $1.0 \text{ W/m}^2\text{K}$

$U_f$  value =  $0.1 \text{ W/m}^2\text{K}$

$U_w$  value =  $1.1 \text{ W/m}^2\text{K}$  \*

Calculated savings \*\*

Annual savings using GENE0®  
MD plus:

Crude oil: 1,136 Liters

Euros: 852 Euros

CO<sub>2</sub> reduction: 3,067 kg

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

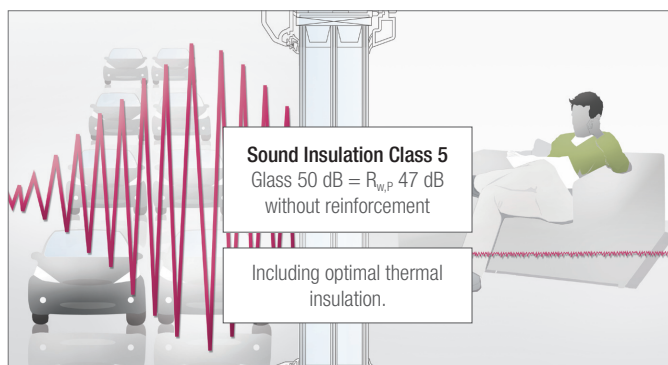
The fully reinforced profile design requires no steel, thus eliminating thermal bridges through which valuable energy can be lost. The best possible break-in protection and previously unattained sound insulation are included.

\* Window size:  $1230 \times 1480 \text{ mm}$ .

\*\* Based on: timber/plastic windows from the 1970s with an approximate  $U_w$  value of  $3.0 \text{ W/m}^2\text{K}$  and a total window area of  $52 \text{ m}^2$ .  
Heating method: crude oil (current price: 75 cents/liter).

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

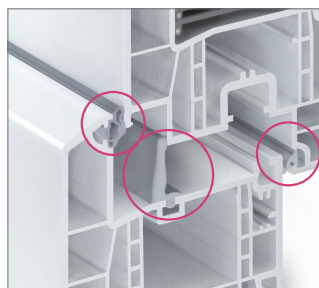
## SOUND INSULATION AND BREAK-IN PROTECTION – INCLUDING HIGH-TECH



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.



### Center 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.



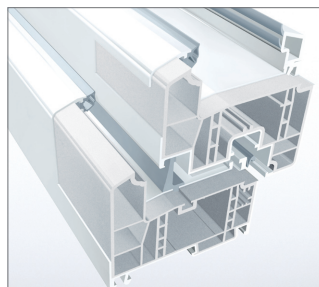
Break-in protection: For security in every situation.

- 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.



### 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 optimize 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.

