

The window of the future



THE WINDOW PROFILE

Perfection – made in Germany

bluEvolution unites future-oriented top technology and modern, pragmatic design in the new generation of first-rate windows. The optimised 6-chamber profile with a construction depth of 92 mm produces brilliant thermal insulation and excellent energy efficiency. Combined with a filigree visible height of only 118 mm, solar gains thanks to high light incidence and the ecological sustainability of a 100 % recyclable vinyl, *bluEvolution* is the window system of the future.

bluEvolution is in many aspects the right decision for your new building, conversion or renovation:

- Excellent thermal insulation, thus cutting heating costs and CO₂ emissions makes *bluEvolution* a really climate friendly window system
- Trend-setting sustainability thanks to design for the planned requirements of the next German Energy Economy Ordinance.

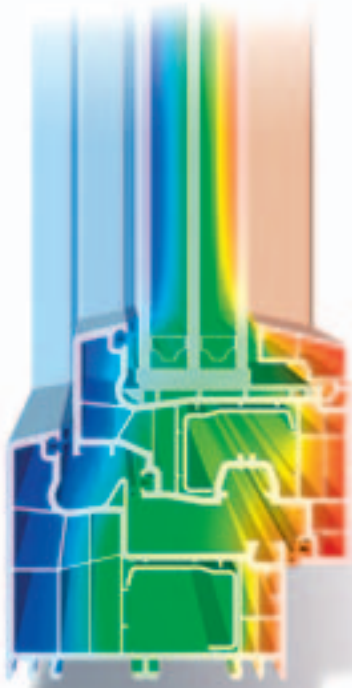


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- Extremely high level of quality thanks to permanent monitoring of the profile production process
- High profile standards according to RAL A-guidelines
- High-grade materials and sophisticated processing ensure a long useful life and maintenance of value
- Recyclability of the entire window profile thanks to first-rate vinyl that can be separated by material types for recycling
- Comforting protection from noise, driving rain and burglary thanks to the high construction depth and the three sealing levels
- Minimum care needed thanks to the highly condensed surface
- Broad design spectrum of shapes and colours with modern slim profile views

Evolution



Three-dimensional illustration of distribution of heat through a window cross-section.



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PROTECTION FROM HEAT LOSS, HEAT AND COLD

Optimal energy efficiency

You don't want to compromise when it comes to comfort and energy efficiency. You don't have to either. Because, as far as thermal insulation is concerned, **bluEvolution** is a class in itself. The entire window's thermal transmittance coefficient U_w is what matters. The lower the U_w value is, the better your window's thermal insulation properties and the lower your heating costs are. The construction depth of the frame and sash and intelligent arrangement of the profile chambers crucially influence excellent ther-

mal insulation. Even in the standard version (without additional thermal insulation measures), a U_w value of $0.83 \text{ W/m}^2\text{K}^*$ can be achieved. With thermally separate reinforcement and an appropriately thermal-insulating glass, **bluEvolution** even attains U_w values of up to $0.73 \text{ W/m}^2\text{K}$, thus meeting the passive house standard. Thanks to its large construction depth, special thermal insulation glass types with an overall thickness of up to 60 mm can be used.

CO₂ and cost savings:

	Standard version	With thermally separate reinforcement	With thermally separate reinforcement, special thermal-insulation glass	
U_f : frame	1.0 $\text{W/m}^2\text{K}$	0.94 $\text{W/m}^2\text{K}$	0.94 $\text{W/m}^2\text{K}$	
U_g : glass	0.6 $\text{W/m}^2\text{K}$ $\Psi = 0,038 \text{ W/m K}$	0.6 $\text{W/m}^2\text{K}$ $\Psi = 0,038 \text{ W/m K}$	0.5 $\text{W/m}^2\text{K}$ $\Psi = 0,038 \text{ W/m K}$	Use <i>*in the case of a standard window 1230 mm x 1480 mm</i>
U_w^* : window	0.82 $\text{W/m}^2\text{K}$	0.80 $\text{W/m}^2\text{K}$	0.73 $\text{W/m}^2\text{K}$	**Based on an old window system: Timber/vinyl window from the 80s U_w value of old window: 2.8 $\text{W/m}^2\text{K}$ Energy medium: fuel oil Price of energy medium: 60 cents per litre Total window area: 50 m² New profile system: bluEvolution
	Better than required by EnEV 2009 (in Germany)	Passive house level	Suitable for passive houses	
You save **				
Fuel oil per year	1,103 litres	1,119 litres	1,156 litres	
Heating costs in the 1st year	€ 662	€ 672	€ 695	
CO ₂ emissions per year	2,205 kg	2,239 kg	2,317 kg	



PROTECTION OF THE CLIMATE AND THE ENVIRONMENT

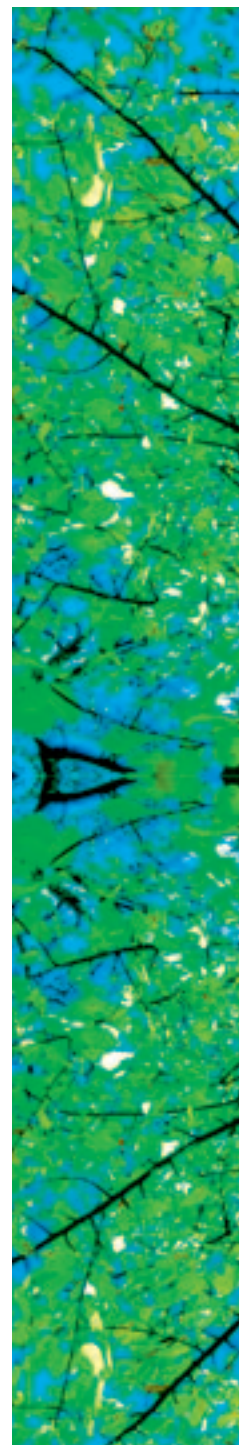
Sustainable – for generations

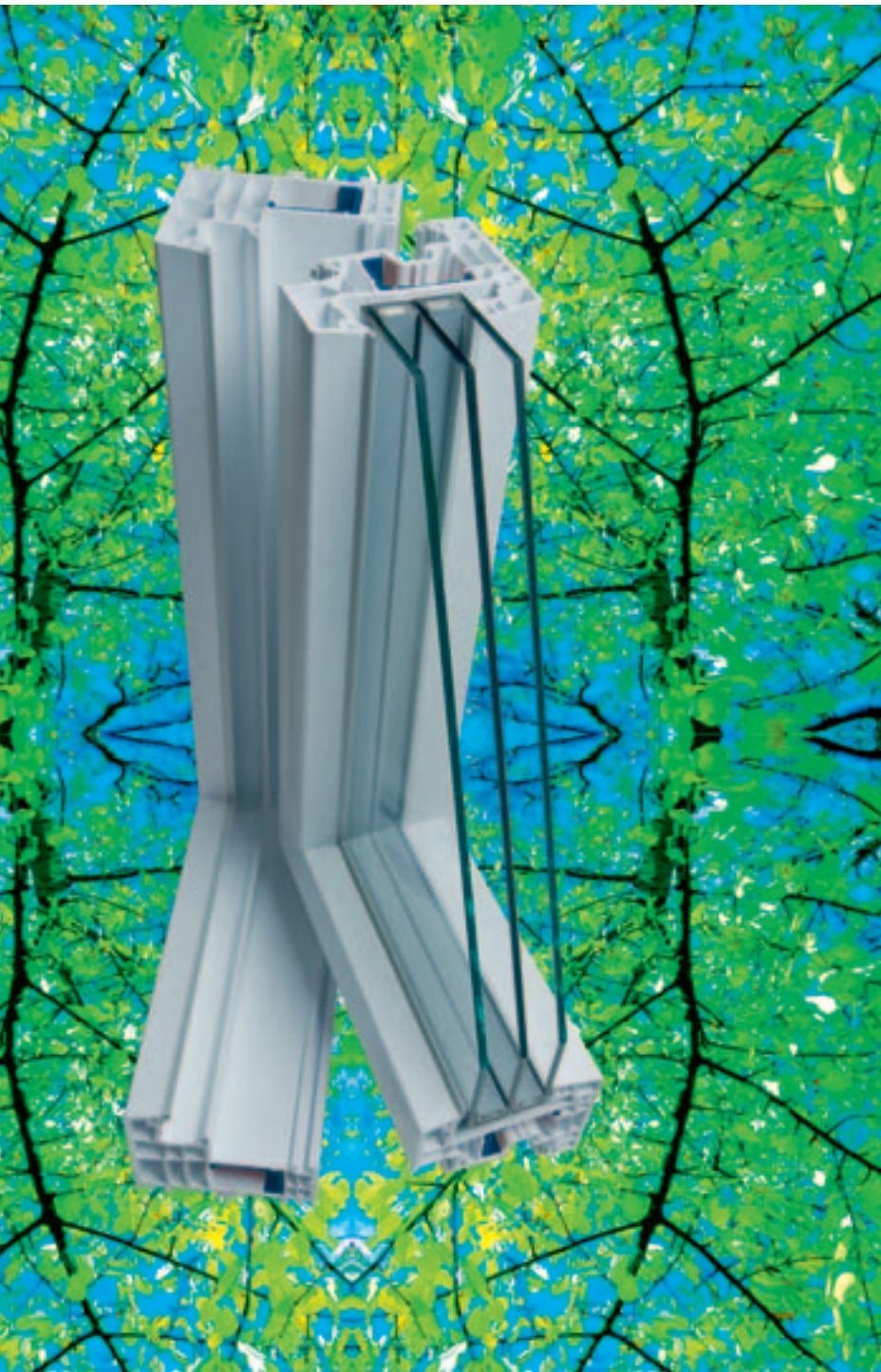
In view of climate change and depletion of fossil resources, protection of the climate and environment is more than ever a topic of relevance. Active measures for saving energy and thus climate protection are laid down in the strict requirements of the energy saving regulations 2009 (EnEV) issued by the Federal Ministry of Construction for Germany.

bluEvolution by far allows windows that

exceed the requirements of the current EnEV ($U_w=1.3 \text{ W/m}^2 \text{ K}$). This is because, with its attributes in relation to energy efficiency and thermal insulation, *bluEvolution* is already orientated to the planned content of future EnEV. Especially when it comes to new buildings and renovation, you can do a lot for yourself and your environment.

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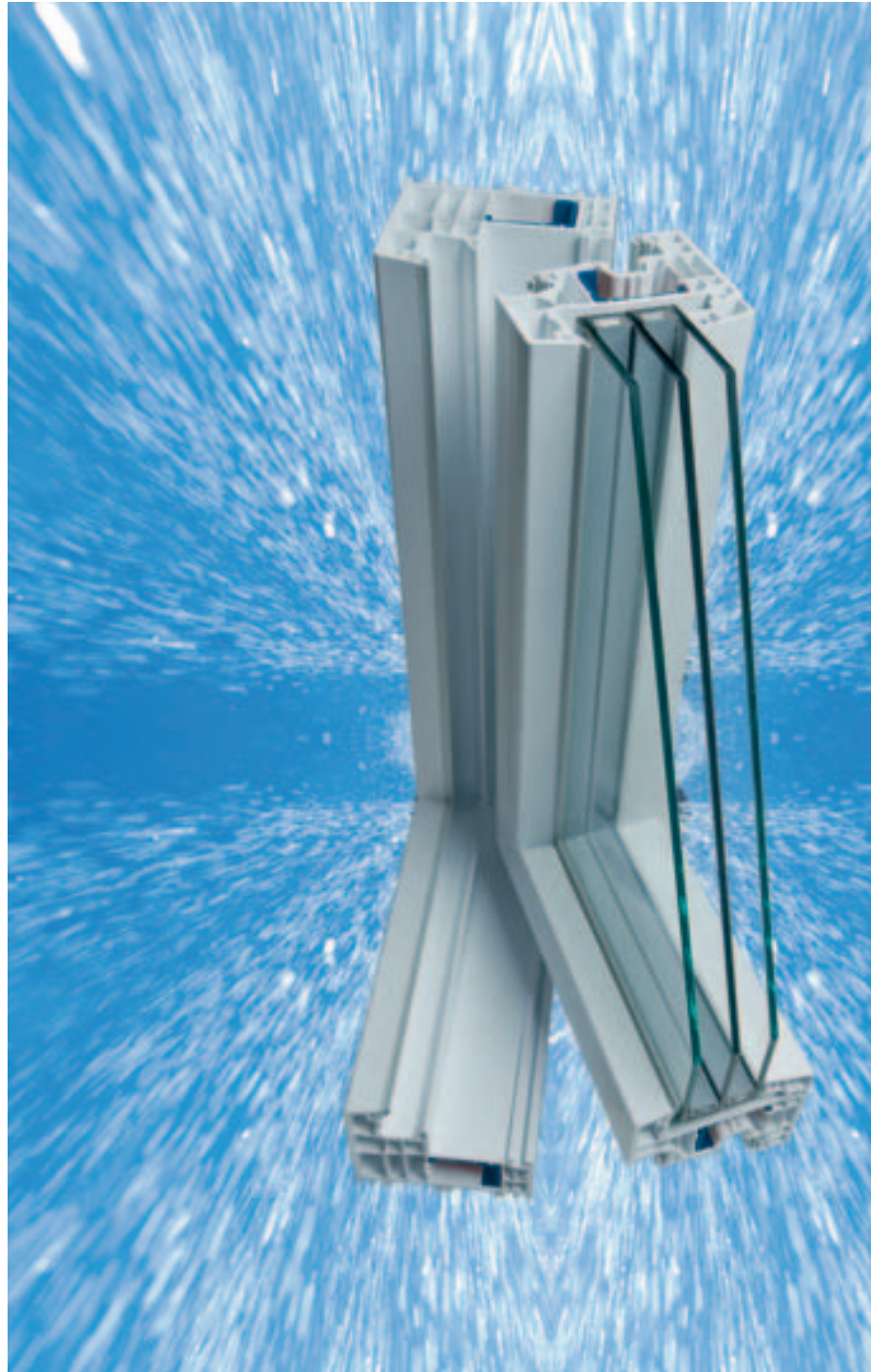
Environmental protection: As a founding member of the Rewindo Recycling Initiative, SIP attaches particular importance to the protection of resources. This thinking is also the basis for the forward-looking generation of *bluEvolution* windows. Recycling of the entire window profiles' materials ensure a closed recycling process. The crucial ecological advantage of plastic and steel, as components of the *bluEvolution* window profile, is that they are suitable for 100% recirculation.

Climate protection: Thanks to the extraordinarily good thermal insulation offered by *bluEvolution*, the energy consumption as well as the heating costs are reduced. As a result, you spare natural resources and emit less CO₂, which harms the climate.



The window is the link to the outside world, it brings light and the warmth of the sun into the building and, at the same time, offers reliable protection against weather and environmental influences.

bluEvolution offers reliable protection even in extreme weather conditions with heavy rain and high wind speeds. The well-thought-out construction with its three sealing levels has been tested to the latest standards – for longevity and reliable function.





System *bluEvolution*



PROTECTION FROM NOISE,
BURGLARY AND DRIVING RAIN

Secure all round – optimally protected

Security is a basic need, which is highly important, especially in our homes. This is because there are things that we like to be secure from: noise, burglary and storms.







Well-earned rest: The sound insulation qualities of windows are based on the quality of the profile, its tightness, the glazing used and the assembly. With its intelligently designed multi-chamber system and its three sealing levels, *bluEvolution* ensures excellent sound insulation. When noise intensity is

particularly high, special sound insulation glazing can be used with *bluEvolution*.

Burglar resistance: The first minutes count – a burglar will very often give up if he does not succeed in gaining access in only a few minutes, through a door or a window. Even without additional measures, *bluEvolution* provides a calming level of security caused by the high construction depth, the protected centre seal system and the deep overlap between frame and sash.



Sound insulation table

Noise	Traffic density	House – road distance	Recommended sound insulation value* of the window
50 dB	Residential street Approx. 1,200 veh/day	 ↔ > 35 m	28 - 29 dB
51 - 55 dB	Residential street Approx. 1,200 veh/day	 ↔ 25 - 35 m	30 - 34 dB
56 - 60 dB	Residential street Approx. 4,800 veh/day	 ↔ 25 - 35 m	35 - 39 dB
61 - 65 dB	Arterial road Approx. 72,000 veh/day	 ↔ 100 - 300 m	40 - 44 dB
66 - 70 dB	Arterial road Approx. 72,000 veh/day	 ↔ 30 - 100 m	45 - 49 dB
> 70 dB	Express highway Approx. 120,000 veh/day	 ↔ up to 100 m	> 50 dB

SHAPE AND COLOUR

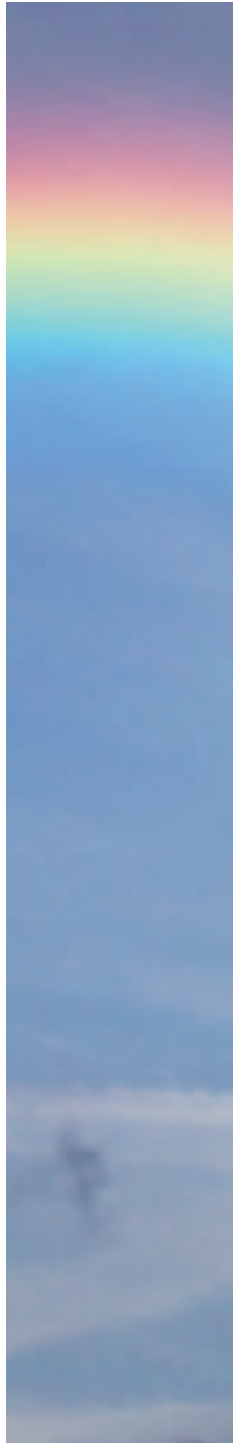


Stylish diversity

Whether you prefer no-frills elegance or would like to accentuate your home with vigorous colours: *bluEvolution* has the right shape and matching decor for you and, of course, the colour of your choice.

Play of colours: You can choose your win-

dow profile out of a broad palette of colours and decors: be it simple in white on the interior and a fresh colour on the exterior or coated completely with a high-grade wood decor. Even unusual colour wishes can be realised.





Play of shapes: how important windows are to the overall architectonic picture of a house is particularly evident in their shape. *bluEvolution* offers a broad spectrum of shapes and variants. It does justice both to the formal idiom of modern architecture as it does to stylish renovation work and matter-of-fact commercial buildings. The slim projection widths of *bluEvolution* are confirmation of the trend towards a clear, filigree language of form. Therefore, you too can accentuate your house with individual shapes and emphasize the overall architectonic picture it paints.



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SIP QUALITY

Passion to partnership

With its years of experience in the development and production of vinyl profiles for windows and doors, Salamander Industrie-Produkte GmbH (SIP) stands for top quality. The quality vinyl is resistant to weather influences and changing temperatures. Windows and doors from Salamander profile systems

also achieve top-level performances in terms of protection against driving rain and functional reliability, stability, longevity and resistance to permanent burdens. Comprehensive quality management documents our high awareness of quality and our responsibility to the environment and later generations.

SALAMANDER[®]
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