

*Experience*  
***top performance***



**KBE 76** Centre seal system









# ***KBE is the leader***

At KBE, high performance means individual solutions, a fast delivery service and technical innovations. Within the space of just a few years, the company has advanced to become a world leading provider of plastic windows.

To consolidate and develop this leading position, KBE regularly invests in modern production facilities, research and development and intelligent logistics.

The dynamism of this special company is evident in the latest generation of KBE profiles: KBE 76. The new system unites all the features that discerning building owners, architects and planners want today: optimised insulation, space for large window areas, plus elegant and forward looking design.

KBE 76 delivers optimum performance.





## *High efficiency in energy savings: KB*



KBE 76 makes it easier and more convenient than ever before to achieve energy and heating cost savings. The new generation of windows can incorporate triple glazing and functional glazing up to a thickness of 48 mm. In other words: hardly any heating energy is lost through the glass. Yet the expansive glass surfaces allow valuable sunlight warmth to enter.



E 76



- » Vast range of options for triple glazing and functional glazing up to 48 mm
- » High heat insulating centre seal system with a 76 mm construction depth
- » Use of solar energy gains
- » State-of-the-art adhesive technology
- » proEnergyTec can be used in the frame and sash





# ***Enhancing quality of life: KBE 76***

KBE 76's large glass areas with modern glazing allow consumers to realise their dreams of light-flooded rooms. The new, narrow profiles deliver high static stability, resulting in a light yet energy efficient living environment. The large window areas make optimum use of sunlight and save heating costs, even when the outside temperature is cold.

Design a more beautiful, inviting and sunnier home. Or renovate your existing home with KBE 76.

- » Narrow profiles for maximum sunlight incidence
- » Solar energy gains reduce heating costs
- » Intelligent design for improved window stability





# ***Added security: KBE 76***

## ***Fantastic sound insulation***

The volume of traffic is growing, we have more industrial estates and our environment is getting increasingly loud. With KBE 76, you can simply shut out loud noise, which can have a negative effect on health.

Innovative seal technology and sound insulating glazing are the solution.

Your home is quieter and more relaxed. Enjoy a sense of well-being in your home with KBE 76.

» **Innovative seals for optimised sound insulation**

» **Optional integration of sound-proof glazing**







## ***Effective intruder protection***

It is a proven fact that anti-burglary features in windows and doors deter intruders because they see them and realise that it will take them too long to break into the building.

That's why KBE 76 offers numerous anti-burglary features to enhance the security of your window, balcony and patio doors. This innovative system is ideal for the integration of anti-burglary fittings and safety glazing.


» **Integration of safety glazing up to resistance class RC 2 (WK 2)**

» **Use of anti-burglary fittings is possible**

# ***Healthy indoor climate***

## ***ClimaTec 76***

Correct, regular airing is becoming more important than ever, especially in face of the growing effectiveness provided by insulation in living space. When there is too little ventilation the relative air humidity rises constantly, quickly giving rise to a damp indoor climate that promotes the growth of mould. For this reason it is important that a healthy balance is reached between a sensible ventilation behaviour and the minimum heat loss. This safeguards on the one hand sustainable energy consumption, on the other the integrity of the building fabric that would otherwise suffer from the effects of moisture. ClimaTec 76 from KBE is your ventilation solution for a regulated supply of fresh air – and that fully automated, even without active ventilation.

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- » Self regulating, easy to clean ventilation system
  - » Minimises high air humidity and the risk of mould
  - » Promotes the controlled supply of fresh air
  - » Ventilator screen protects against insects
  - » Concealed in the frame, so practically invisible from the inside and outside
  - » Automatic wind pressure regulation
  - » Complies with EnEV (German Energy Savings Act)
  - » Tested sound insulation up to 43 dB (STC 4)
  - » Tightness against driving rain and air passage in accordance with DIN and EU standards
  - » Ventilation in accordance with DIN 1946-6





## Wellness with ClimaTec 76

The ventilation mechanism of ClimaTec 76 lies concealed in the outer frame rebate and is practically invisible – but the more effective for that. It provides for a controlled supply of fresh air without manual ventilation and does not need a power supply.

ClimaTec 76 can also regulate indoor air humidity. The risk of mould formation is therefore greatly minimised. Moreover the ventilation system ClimaTec 70 features automatic wind pressure regulation and of course complies with the requirements

under EnEV (German Energy Savings Act) as well as the DIN and EU standards on tightness against driving rain, sound insulation, and residential ventilation.

Installation Ventilator	Sound Test Value in dB*			Air Passage in m <sup>3</sup> /h				
ClimaTec 76	A	B	C	2 Pa	4 Pa	5 Pa	7 Pa	8 Pa
250/200	37	41	41	3	4	5	6	6
300/250	37	41	40	3	5	5	7	7
350/300	37	39	39	4	5	6	7	8
350/350	34	37	37	5	7	8	9	10
400/350	34	36	35	5	8	9	10	11
400/400	32	33	33	6	9	10	12	12
1 Lüfter	38	43	43	2	3	4	5	5

\*Disc structure: A) 6/16/4/14/4 (36-37 dB), B) 8 VSG SI/12/6/12/8 VSG SI (45 dB), C) 12 VSG SI/20/8/20 VSG SI (48 dB)

# Passive house

Want to do a lot for the environment, yet save costs without sacrificing convenience and design? A passive house with KBE 76 makes this possible. When fitted with the upgrade technologies AluClip Pro and proEnergyTec, the modern window system exhibits a thermal insulation value  $U_f$  of  $0.82 \text{ W}/(\text{m}^2\text{K})$ , fulfilling the high energy saving requirements for passive houses. Yet KBE 76 with AluClip Pro and proEnergyTec can offer a lot more besides.



$U_f = 0.95 \text{ W}/(\text{m}^2\text{K})$



$U_f = 0.82 \text{ W}/(\text{m}^2\text{K})$

## Proactive

### **AluClip Pro**

KBE 76 AluClip Pro gives you the best of two worlds: aluminium and PVC-U in the one innovative system. Aluminium presents a convincing elegance, the best weather resistance, high stability, and a wide range of colours. PVC-U provides the optimal thermal and sound insulation in addition to functional reliability. Yet another advantage – The aluminium takes over the load bearing functions, so no steel reinforcement is needed in the window sash.

### **proEnergyTec**

The reinforcing chambers in both the sash and frame can be filled with proEnergyTec foam instead. This technology achieves the highest thermal insulation values and can be recycled easily at a later date. The values are so good that KBE 76 with AluClip Pro and proEnergyTec fulfils passive house requirements.





# ***environmental protection***

## ***Passive house***

The concept behind a passive house works only with a refined thermal insulation that limits the annual heating needs to 15 kWh per square metre of living space. This allows a building to be heated alone from passive energy sources without the need for a separate heating system. One of the most important components here is the window system. The slender profile sight lines presented by KBE 76 with the aluminium cover not only allow a modern design with large glazed areas, but also increase solar gains.

- » **Certified for passive houses by ift Rosenheim.**
- » **Outstanding thermal insulation value up to  $U_f = 0.82 \text{ W}/(\text{m}^2\text{K})$**
- » **Elegant aluminium design in all RAL colours**
- » **A system for the whole home**
- » **Fully recyclable**
- » **High stability through aluminium saves costly steel reinforcements**

# *Everything else but superficial*



## *Great design diversity*

Developers, architects, and planners will be fascinated by the colour options with KBE 76. Whether new buildings or renovations – KBE 76 lends its countless colours and surface structures for a unique architectural character. One particular innovation takes the form of the surface technology proCover-Tec. This new and unique finishing combines function with long life and aesthetics.



### ***Classical white***

Timeless white of enduring beauty because the quality PVC-U of KBE 76 is extremely weather resistant, retaining its smooth, glossy surface. It is also easy to clean.



### ***Plain colour laminations***

This lamination brings colour into play. The surface is weather resistant and easy to clean.



### ***Wood grain laminations***

The wood grain lamination unites the natural look with the advantages of robust PVC-U. The regular paintwork usual for wooden profiles is no longer necessary, and your house takes on the character of a farmhouse.





## ***The innovative surface technology***

The proCoverTec surface is extremely tight and homogeneous. It provides the optimal protection on your window profiles against solar irradiation and weathering effects and offers the minimal hold for particles, effectively eliminating dirt. The satin look presents a quality appearance. This is joined by the pleasant feel of the slightly structured surface. Choose from a wide range of 22 colours.



COLOUR



PROTECTION



USER FRIENDLY



## ***Optimum teamwork: KBE 76***

Plastic and aluminium – KBE 76 unites the advantages of both materials in an innovative window system. The aluminium shell delivers weather resistance and a comprehensive range of colour options. The plastic profile on the finished window delivers optimum heat and sound insulation.







### ***AluClip***

The aluminium facing shell for KBE 76 gives you the best of both worlds: elegant aluminium design in a practically unlimited range of colours, plus the optimum insulation values of a modern plastic profile system.



### ***AluClip Pro***

The AluClip Pro has an aluminium profile connected to a plastic profile. The aluminium performs the static function so no steel reinforcement is necessary inside the window casement. The reinforcement chamber is filled with proEnergyTec foam. The additionally insulated profiles guarantee extraordinarily high heat insulation.



### ***AddOn***

The aluminium interconnecting frame not only boasts modern design, it also has an optional integrated privacy and sun protection elements. The additional glass pane also improves its heat and noise insulation properties.

# ***Stable doors:***

## ***KBE 76***

Welcome! Your guests will be impressed by your new KBE 76 door. It also perfectly blends in with your home's overall appearance because you can use the same system for your front door, balcony door, patio door and parallel slide-tilt doors.

KBE 76 is distinguished by its excellent heat and sound insulation values, plus effective protection against the elements and impact rain.

- » Front doors, balcony and patio doors, parallel slide-and-tilt doors
- » Perfect rain and wind protection
- » High heat insulation as a result of the thermally separated threshold
- » Maximum sash sizes:  
single sash door 1200 x 2400 mm  
secondary sash door 1000 x 2400 mm
- » Excellent intrusion protection – up to resistance class RC 2 (WK 2)
- » Excellent tightness as a result of the double threshold seal
- » Use of special functional glazing or conventional panels











# *Pioneering sustainability: KBE 76*

KBE 76 conserves valuable resources because this new generation of windows achieve an optimum balance of material usage and functionality. That means maximum insulation values with the most sparing use of plastics.

It is also designed in accordance with greenline principles. No lead is used in the plastics as a stabiliser. Instead, an eco-friendly calcium-zinc based stabiliser is used.

The sustainability cycle doesn't end when the KBE 76 reaches the end of its life span because the proEnergyTec foam-filled profiles allow the PVC and the foam to be cleanly separated for recycling.

- » Optimised material usage
- » Lead-free, eco-friendly stabilisers
- » Professional recycling
- » Lasting contribution to CO<sub>2</sub> reduction because you use less energy as a result of high heat insulation





*greenline* 



# *Impressive performance*



## **Top heat insulation**

The insulating chambers and the foam-filled proEnergyTec version guarantee excellent heat insulation.



## **Top design**

Narrow profiles allow for expansive transparent glass surfaces. There is also a comprehensive selection of foils and combinations of coated aluminium for individual design.



## **Top ventilation**

The use of optionally integrated ventilation systems ensures an optimum indoor climate and prevents mould from forming.



## **Top sound insulation**

In combination with high quality functional glazing, the KBE 76 system delivers optimum noise protection.



## **Top intruder protection**

The window profiles are designed for use of special safety fittings and additional burglary-protection measures.



## **Top tightness**

The innovative seal levels keep out draughts, dust and rain, and ensure a pleasant indoor climate.





KBE 76's biggest strength is the sum of its advantages. This modern plastic window system meets all present and future requirements.

## nce: **KBE 76**



### Top convenience in operation

Optimised for modern fittings, all opening types are possible for simple everyday opening and closing.



### Top on care

The high quality surfaces are weather resistant and easy to clean.



### Top value for money

High quality, first-rate eco-friendly plastics and lasting convenience of operation permanently add to the value of your property.



### Top stability

Perfect steel reinforcement positioning and steel supports ensure perfect window statics. Adhesive-fitted glazing includes the three components of »sash - adhesive - glass« in a composite structure. With AluClip Pro, the aluminium facing shell assumes the static function.



### Top depth: 76 mm

The window profile's low construction depth doesn't just enhance the appearance of a new building, it is also perfect for renovation projects with complex architectural and energy-related requirements.



# ***A system with a future: KBE 76***

KBE 76 is a universal window system that flexibly adapts to individual requirements and budgets. However, it isn't just the comprehensive range of options that make KBE 76 so attractive, but also its state-of-the-art technology.

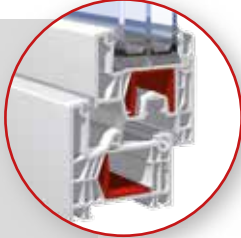
The innovative design permits the installation of triple glazing with modern insulation glass, despite the profile being relatively narrow. And intelligent mounting techniques ensure that the replacement of an old window with a new modern KBE 76 window is a clean and quick process.



1

### » Perfect heat insulation

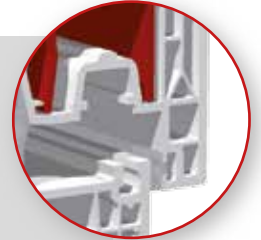
KBE 76 already achieves a heat insulation value of  $U_f = 1.1 \text{ W/(m}^2\text{K)}$  with standard windows.



5

### » Reliable function

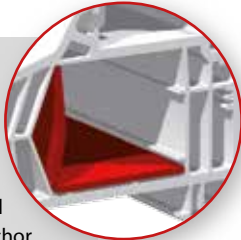
The load bearing fittings are screwed together via several cross profiles, special lugs and the steel reinforcement.



2

### » Versatile and clean installation

KBE 76 windows are suitable for all current installation situations. Screws can be inserted through the steel, through a dowel chamber adapter or with the help of an anchor for variable, fast and clean installation.



6

### » Versatile design

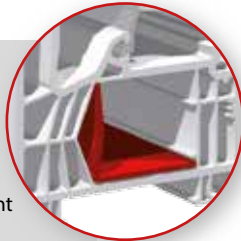
The KBE 76 system offers numerous customisation options, such as a range of foil colours or modern aluminium facing shells which can be coated in all RAL colours or with special effect coatings.



3

### » High dimensional stability

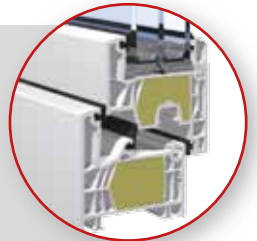
The centrally arranged steel reinforcement ensures maximum dimensional stability. Special supports hold the steel reinforcement in the right position.



7

### » proEnergyTec

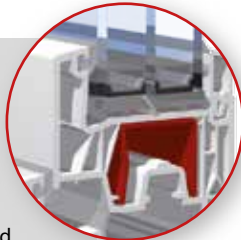
This technology achieves the highest possible heat insulation values because the reinforcement chamber is foam filled, which eliminates the need for steel reinforcement inside the sash and/or frame.



4

### » State-of-the-art chamber design

The chambers are designed on the basis of the most modern calculation methods to ensure high heat and sound insulating properties, plus optimum profile stability and the strength to hold heavy glazing.



# ***Meet new targets: KBE 76***

KBE 76 is durable. As a result, buying new windows and doors isn't just a good investment, you also get to enjoy their optimum function and perfect design for many years to come. The high quality of KBE 76 makes it excellent value for your money.

You also generate lasting value with KBE 76. Its timeless elegance and sustainable design reflects your acceptance of responsibility for future generations.

- » Impressive cost and energy savings as a result of optimised heat insulation
- » Enhanced quality of life through perfect sound insulation
- » More security through integratable intruder protection features
- » Easy-care, robust and weatherproof surfaces
- » Retains value due to durability and excellent quality
- » State-of-the-art technology for excellent ease of operation and reliable function







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