



## **KÖMMERLING 88*plus***

**The exclusive window and residential door system with the best requisites.**



**KÖMMERLING®**



The founder Karl Kömmerling.

**The company was founded in 1897 as a commercial enterprise by Karl Kömmerling. Before making its name as a manufacturer of PVC-U profiles, the company first produced adhesives and synthetic rubber. In 1957 the company commenced production of plastic roller shutters, and in 1967 the extrusion of window profiles and PVC sheets.**

Its success fuelled an explosive expansion. Besides our head office in Pirmasens, there are six other production sites in France, Italy, Spain, the USA, China, and India. Today KÖMMERLING supplies about fifty countries in the world and has set itself the target of making products for high quality needs. These needs affect not only aesthetic aspects, but also the maximum engineering and material performance, extremely long service lives, and minimum care and maintenance.

As an end to end provider, KÖMMERLING presents an extensive range of window and shutter systems that is a clear cut above the competition. Our widely diversified range of systems also provides the basis for creative solutions tailored specifically to quite individual needs. Whether floor-to-ceiling window walls, polygonal annexes, facade projections, or bay windows with distinctive features and angles, KÖMMERLING systems are your key to a virtually inexhaustible design potential.

In addition, the KÖMMERLING brand is a leading manufacturer of PVC sheets for the most diverse applications. This line of quality products marketed worldwide forms a strong unit in the profine Group.

The brand attaches great importance to systems thinking. Quality by KÖMMERLING means not only the harmonised unity of the product range, but also the supervision of all product stages, whether research and development, production, design purpose, or ecological recyclability.

KÖMMERLING –

*Tradition and modern*

since  
*1897*



# What requirements will *the future have?*



## ► Making decisions for life tomorrow.

What we build today will have a significant effect on the future. It is always important to consider which architecture and technologies we will be passing on to the next generations. The focus is on the increasing requirements for energy efficiency and the sustainable use of resources as well as the protective function of our homes – our haven of warmth and safety. Innovative products such as KÖMMERLING 88*plus* – the latest generation of PVC-U window profiles – supply the solution to fulfil these requirements. The new Premium Window Profile System gives architects and home-owners the tool today to create a sustainable living environment for the future.

**KÖMMERLING 88*plus*** – die Antwort.







# *How free are you* to make decision?

## ► Open for new perspectives

The gap between the desired and the feasible provides room for creativity. The new generation of window profiles **KÖMMERLING 88<sub>plus</sub>** offers vast scope for both creative and economical designs. **KÖMMERLING 88<sub>plus</sub>** – the freedom to let your ideas become reality.

**KÖMMERLING 88<sub>plus</sub>** – die Antwort.

## Creative freedom in size, shape and colour

- Lineal, recessed design with perfect window profile proportions.
- The best results for heat and sound insulation and burglary protection.
- Slim window profiles allowing the greatest amount of light in and providing high solar energy gains.
- Floor-to-ceiling window walls – sash doors up to 2.5m high.
- Inward opening and outward opening residential doors – sash sizes up to 1.2 m wide and 2.4 m high.
- High-quality, attractive woodgrain and plain colour designs – aluminium shells for individual choice of colour.
- Optimum economic efficiency; environmentally friendly, durable, easy to clean and robust.





# Why does it have to be one or the other?

## ► Extremes merge.

Better sound insulation or better thermal insulation? Better design or better economic efficiency? Such combined requirements for new buildings or renovation work have increased significantly in the past few years. Windows have always played a key role. Windows are the most sensitive part of a house and it is here that energy consumption, security, noise protection and the whole design of a building are defined. KÖMMERLING is setting new standards – not only for high performance PVC-U windows. With this new generation of PVC-U window profiles, KÖMMERLING has achieved the ideal balance between different technical requirements and between desire and feasibility. Our answer is therefore: both.

KÖMMERLING 88plus – die Antwort.



## 1. Design

Perfect proportions with slim window profiles, classic aluminium design with aluminium shells, almost unlimited choice of colour – the KÖMMERLING 88plus programme fulfils every wish.

## 2. Economic efficiency

Whatever the requirement – KÖMMERLING 88plus always has a solution. “Economic efficiency” is always at the forefront.

## 3. Thermal insulation

KÖMMERLING 88plus has a value of  $U_i = 1.0 \text{ W}/(\text{m}^2\text{K})$  in the standard version and top values of  $U_i \leq 0.8 \text{ W}/(\text{m}^2\text{K})$  for windows certified as suitable components for passive houses.

## 4. Sound insulation

The ideal combination of three layers of the sash rebate seals and a wide spectrum of glazing offer numerous sound insulation values up to 48 dB (Class 5).

## 5. Security

In burglary tests, KÖMMERLING 88plus window profiles together with corresponding fittings and burglary-proof glazing achieved the resistance class 2.

## 6. Environmental protection

Reduction in energy consumption and CO<sub>2</sub> emissions, stabilisation with calcium-zinc instead of lead, use of recycled material, full recyclability – KÖMMERLING 88plus is leading the way in environmental protection.



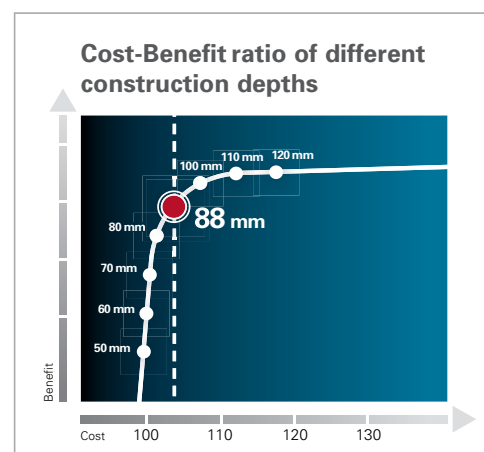


# The right answer *for your needs!*

## ► KÖMMERLING 88plus

KÖMMERLING 88plus has defined a completely new quality standard for the development of PVC-U window profiles. It is the sophisticated complete construction of the new generation of window profiles that has resulted in substantial increases in thermal and sound insulation values, security and economic efficiency.

With KÖMMERLING 88plus the leading product has been created giving a totally new quality to buildings and life.



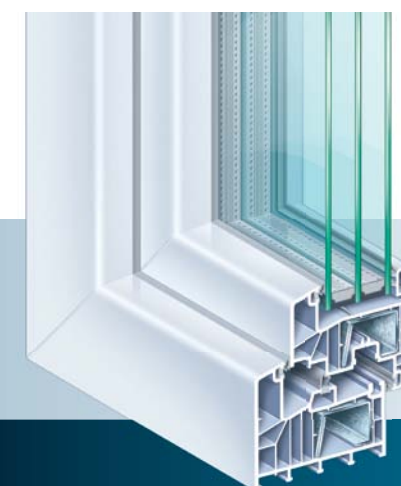
The physical properties of a window profile improve with increasing construction depth. In terms of cost effectiveness and sustainability, the limit is reached with 88 mm.

**Cost:** Increase in production costs based on 60 mm window systems (= index 100).

**Benefit:** Improvement of physical properties of a window profile as a result of the construction depth using thermal insulation as an example.

## ► A new standard is setting standards

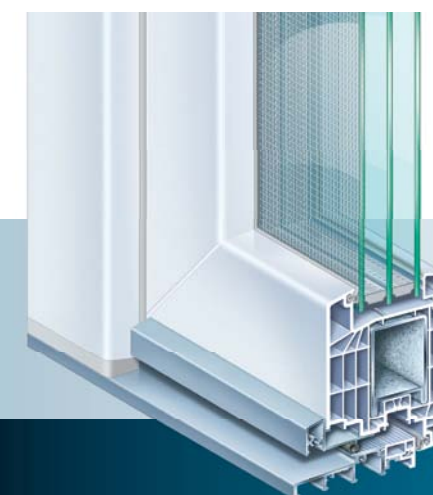
Highly insulating, 6-chamber central thermal sealing system with 88 mm construction depth and slim profile sight lines. Innovative sash rebate seal and integrated chamfered steel reinforcement – forming an additional seventh chamber in the system – for outstanding thermal insulation properties of  $U_f = 1.0 \text{ W/(m}^2\text{K)}$ .



- $U_f$  value  $1.0 \text{ W/(m}^2\text{K)}$
- Three layers of sealing and central thermal seal guarantee high protection against driving rain, optimal imperviousness to wind and excellent sound insulation up to 48 dB (Class 5).
- Burglary test – resistance class 2
- Floor-to-ceiling window walls – sash doors up to 2.5m high.
- wide glazing range from 22 to 54 mm for special functional glazing
- particularly easy to clean and low maintenance through arrangement of window fittings in protected section behind the central thermal seal
- Optimum economic efficiency; environmentally friendly, durable, and robust.

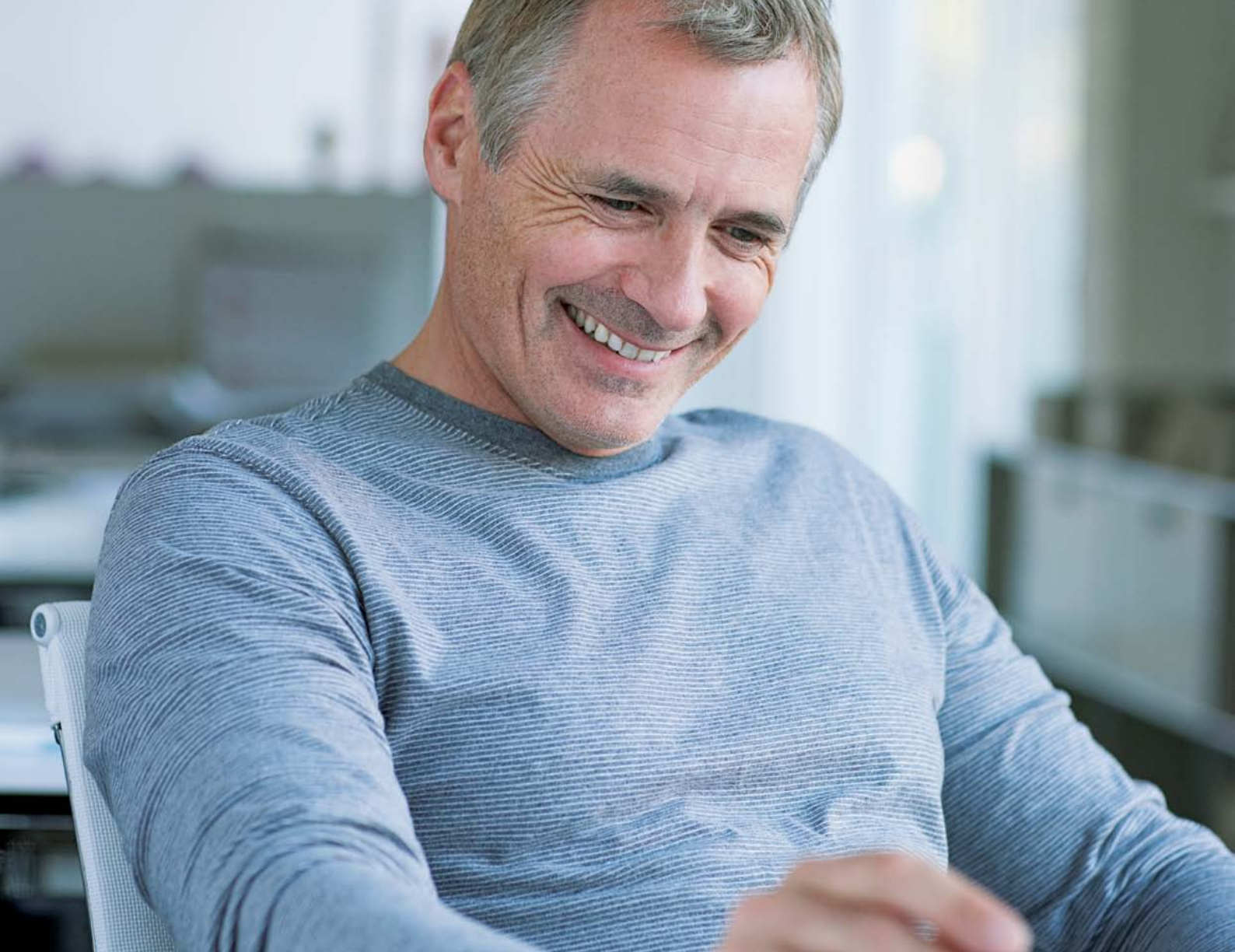
## ► Inward and outward opening residential doors

Residential doors form part of your living space and your own personal living environment. You should therefore give your full attention to your decision for the right residential door system.



- Highly insulating residential door system with 88 mm construction depth.  $U_f$  value inward opening 1.1 – outward opening  $1.2 \text{ W/(m}^2\text{K)}$ .
- 5-chamber design with maximal sized steel reinforcement and welded corner connector for greater static properties.
- Use of special functional glazing or 22–54 mm residential door panelling.
- High tightness with double seal to barrier free threshold with thermal break.
- Aluminium weather bar and rebate pad set for additional protection against driving rain.
- Max sash sizes:  
Single-sash side-hung door 1200 x 2400 mm  
Floating mullion door 1000 x 2400 mm

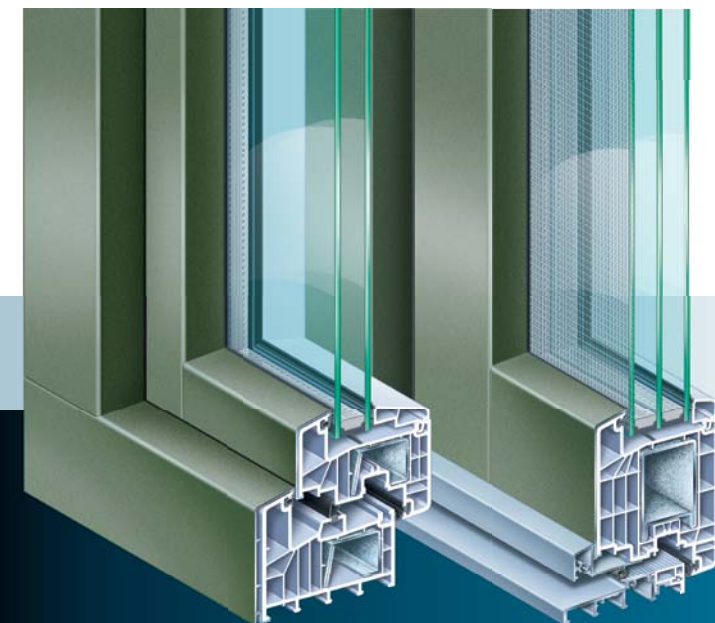




# Is it really possible to be *creative with aluminium?*

## ► Good connections – good energetic balance.

Aluminium on PVC-U – elegance combined with the best insulating values. Each material offers its own individual advantages.



- Extraordinary heat insulation compared to aluminium windows and residential doors.  
 $U_f$  value for window =  $1.1 \text{ W}/(\text{m}^2\text{K})$   
 $U_f$  value for residential door =  $1.2 \text{ W}/(\text{m}^2\text{K})$ .
- Wide glazing range from 22 to 54 mm for special functional glazing or residential door panelling.
- Outside aluminium look, inside neutral white.
- Butt jointed aluminium shells in classic design.
- Almost unlimited choice of colour of the aluminium shells due to finishing techniques such as anodising and powder coating.
- Conservation of resources by using only a minimum quantity of aluminium.
- Easy to clean, durable and robust.

Slim and elegant appearance, wide choice of colour – the KÖMMERLING 88*plus* window profiles with aluminium shells give plenty of opportunity for creativity.

If you opt for aluminium surfaces for their appearance then you should consider KÖMMERLING 88*plus* with aluminium shells which will give you all the advantages of modern PVC-U windows: environmental compatibility, sound insulation, economic efficiency and recyclability.

Above all, the best possible thermal insulation – for a sensible energetic balance. Without doubt, aluminium and PVC-U make the perfect combination, especially for innovative and presentable buildings.

**KÖMMERLING 88*plus*** – die Antwort.







# What makes the perfect *passive house window?*

Passive houses give a stunning performance. The technical demands on windows are exceptionally high. KÖMMERLING 88*plus* is a new generation of PVC-U window profiles with sophisticated insulation technology and high construction depths with slim window profiles.

They look elegant, have ideal proportions and are efficient in gaining solar energy. Never before have such beautiful and perfect windows been built for passive houses.

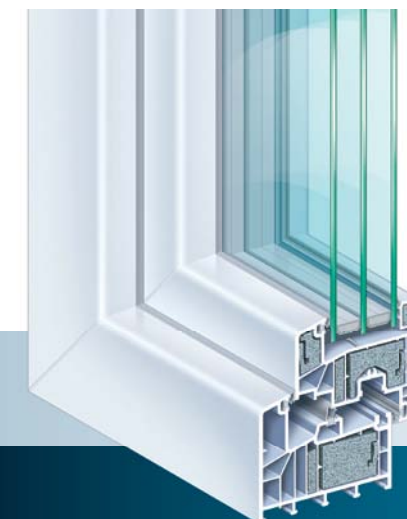
Extremely slim window profiles will be the design for passive houses in the future – a new era has begun.

**KÖMMERLING 88*plus*** – die Antwort.



## ► A new class of passive house windows.

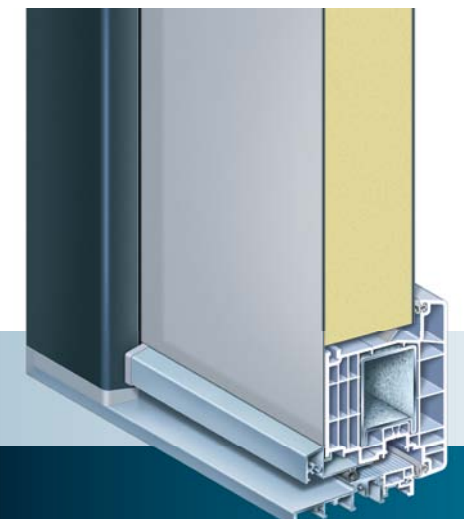
Exceptional demands for extreme thermal insulation have had a strong influence on the design of window profiles, especially for passive houses. With the latest window technology, modern design and sophisticated construction, diverging requirements have been brought in line with each other.



- Certification as suitable component for passive houses –  $U_f$  value  $\leq 0.8 \text{ W/(m}^2\text{K)}$ .
- Lineal, recessed design with perfect window profile proportions.
- Slim window profiles allowing the greatest amount of light in and providing high solar energy gains.
- High warping and torsion resistance owing to force-transmitting composite glue between window sash and glazing.
- Floor-to-ceiling window walls – sash doors up to 2.5m high.
- Fully recyclable – polystyrene insulating material can be removed.

## ► Highly insulating residential door.

The residential door section depicted in the following presents an example of commercial inter-sash residential door panelling. An application has been submitted for certification as a "component suitable for passive houses".



- Highly insulating residential door system  $U_d$  value =  $0.77 \text{ W/(m}^2\text{K)}$ \*  
\* Calculated value as per DIN EN 10077-2 based on element size 1100 x 2100 mm
- Quality design with inter-sash residential door panelling.
- Countless design variants with the customary inter-sash residential door panelling.
- Clear play of lines also on the inside – a glazing bead is no longer necessary.
- Three sealing levels – with central thermal and double seals to the barrier free threshold with thermal break – ensure in addition a high level of protection against driving rain and the optimal imperviousness to wind.





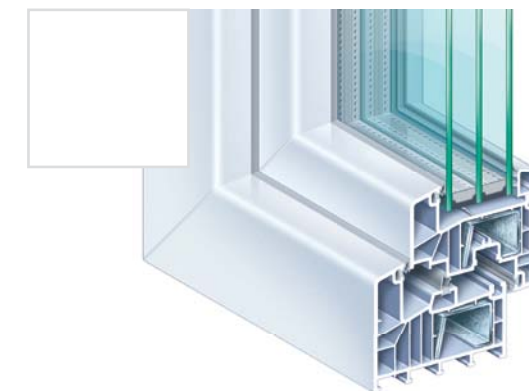
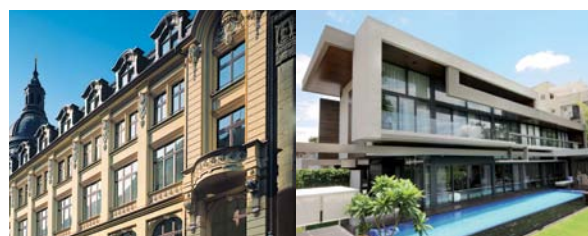
Do you want  
*to set new trends*  
in colour?

**The KÖMMERLING 88*plus* system includes a large variety of shapes and colours. That's why nearly all tasks are possible in a redesign phase or during building renovation. It makes no difference if the windows are old and have variable layouts or if they are a storey high and span a large-scale façade. Creative freedom knows no boundaries.**

In terms of variety of shapes and colours, the KÖMMERLING system provides plenty of opportunities. You also have a choice between different wood patterns or plain colours. In addition, the system also offers attractive aluminium covers. Besides the known advantages of using PVC-U for window frames, there are almost unlimited colour scheme possibilities. The advantages of both materials are combined into one structural element.

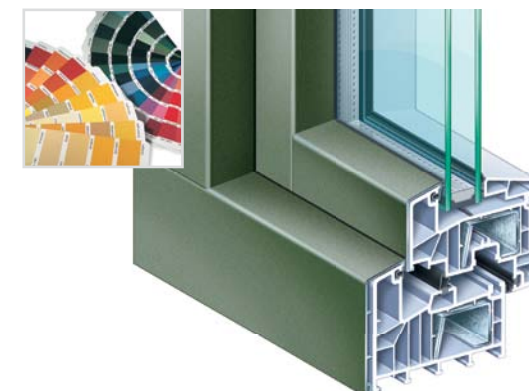
## ► Window shapes for old and new buildings

Whether for the renovation of old, historic building facades or a new design of groundbreaking modern architecture, the window solution must fit its respective style. The KÖMMERLING 88*plus* system is always so flexible and can be customized to emulate the ideas of architects and planners. The end result is a successful façade with sophisticated design.



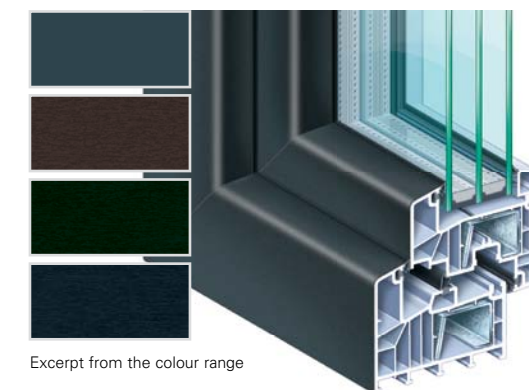
## ► Classic white

Now as before, the elegant window in white enjoys unparalleled popularity. The window profiles present a smooth, glossy surface of durable visual appeal that is easy to clean.



## ► Aluminium covers

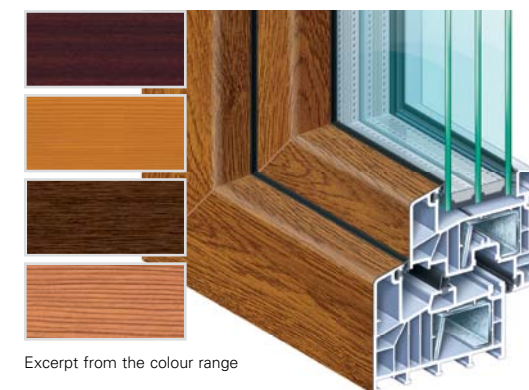
An almost unlimited range of colours offer finishing techniques on the aluminium covers such as powder coating or anodizing. We also provide additional opportunities for individualisation through the use of micaceous iron oxide with metallic pigments.



Excerpt from the colour range

## ► Plain colour foiling

KÖMMERLING 88*plus* line of plain colours available for outside foiliation are visually convincing of an elegant, velvety surface texture. Its touch is pleasant and it is also easy to clean. The look of metallic colours corresponds to the look of brushed metal, thanks to the use of unique metallic pigments.



Excerpt from the colour range

## ► Woodgrain foiling

You have the choice between woodgrain on the outside paired with a neutral white on the inside or woodgrain both in and out. You can match your window to your interior equipment or to allow it to look nearly invisible. Additionally, lamination creates the look of a particularly fine surface.

- Classic white
- Attractive woodgrains or plain colours on the outside and white on the inside, or laminated on both sides
- Aluminium covers for an almost unlimited variety of colours





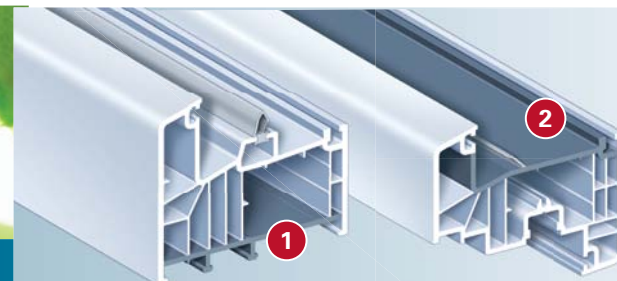
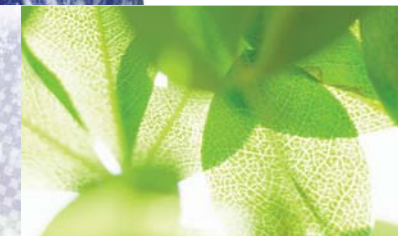
## ► Sustainability is the highest command.

With every product today, its environmental compatibility is always questioned. Up to now lead has always been used as a stabiliser in the production of PVC-U windows. For many years, KÖMMERLING has proven that there is an alternative with "greenline". Instead of lead, environmentally-friendly calcium-zinc is used.

A further important criterion for the production of PVC-U window profiles is to ensure the best possible use of resources. Recycled material is used in KÖMMERLING profiles. This means that high-quality rest material from profile extrusion processes and window production are reused in the production cycle.

We have made it our objective to ensure environmental compatibility and sustainability. This guarantees that those who use KÖMMERLING products are also working to protect the environment.

**greenline** 



# What makes a product *environmentally sound?*

- Conservation of resources by using recycled material in the non-visible areas of fitted windows (Fig ① frame and Fig ② sash window profile).
- All PVC-U window profiles are produced with "greenline" – the environmentally-friendly calcium-zinc stabiliser instead of lead.
- Active environmental protection through consistent recycling.
- Great reduction in energy consumption and CO<sub>2</sub> emissions with improved thermal insulation.





► **KÖMMERLING 88*plus*** –  
the basis for windows  
with the best properties.

1

- Straight, recessed design with perfect window profile proportions and slim window profiles allowing the greatest amount of light in and achieving high solar energy gains.



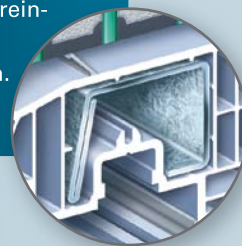
2

- Highly insulating, 6-chamber central thermal sealing system with 88mm construction depth.



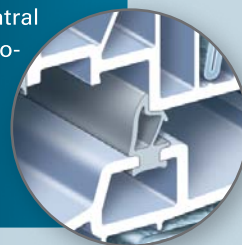
3

- An integrated chamfered steel reinforcement forms an additional seventh chamber in the system.



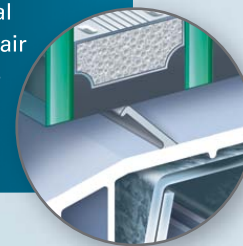
4

- Three layers of sealing and central thermal seal guarantee high protection against driving rain, imperviousness to wind and excellent sound insulation.



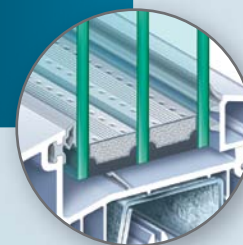
5

- The innovative sash rebate seal reduces thermally conditioned air movements and ensures excellent thermal insulation values.



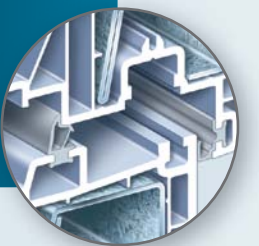
6

- Wide glazing range from 22 to 54 mm for special functional glazing.



7

- Especially easy to clean and low maintenance owing to the protected positioning of the hinges behind the central thermal seal.



8

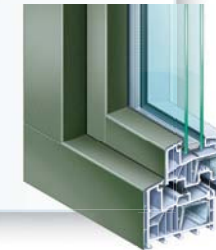
- Safe installation of inner and outer window sills and connection profiles thanks to technically perfect connection details.



► **System variants for special requirements.**

**Aluminium look**

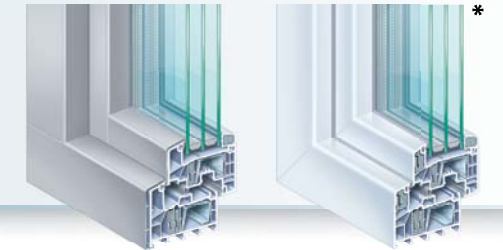
- Butt jointed aluminium shells in classic design.
- Extraordinary thermal insulation compared with aluminium windows –  $U_f$  value =  $1.1 \text{ W/(m}^2\text{K)}$ .
- Outside aluminium look, inside neutral white.
- Almost unlimited choice of colour of the aluminium shells due to finishing techniques such as anodising and powder coating.
- Conservation of resources by using only a minimum quantity of aluminium.
- Easy to clean, durable and robust.



**Highly insulating windows with steel reinforcements**

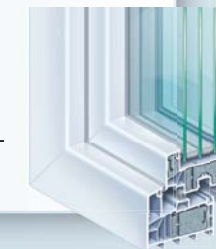
- Further improvement of the  $U_f$ -values is achieved by using special polystyrene thermal insulating components in the frame, sash and glazing bead.

The  $U_f$ -values are available upon request.



**For passive houses**

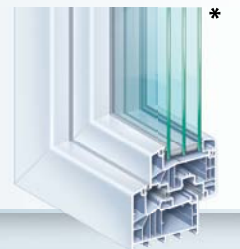
- Certification as suitable component for passive houses.
- Lineal, recessed design with perfect window profile proportions.
- Slim window profiles allowing the greatest amount of light in and providing high solar energy gains.
- High warping and torsion resistance owing to force-transmitting composite glue between window sash and glazing.
- Floor-to-ceiling window walls – sash doors up to 2.5m high.
- Fully recyclable – polystyrene insulating material can be removed.



**Highly insulating windows with bonding technology**

- These windows do not require any steel reinforcements. It is also not necessary to use special polystyrene thermal insulation components.

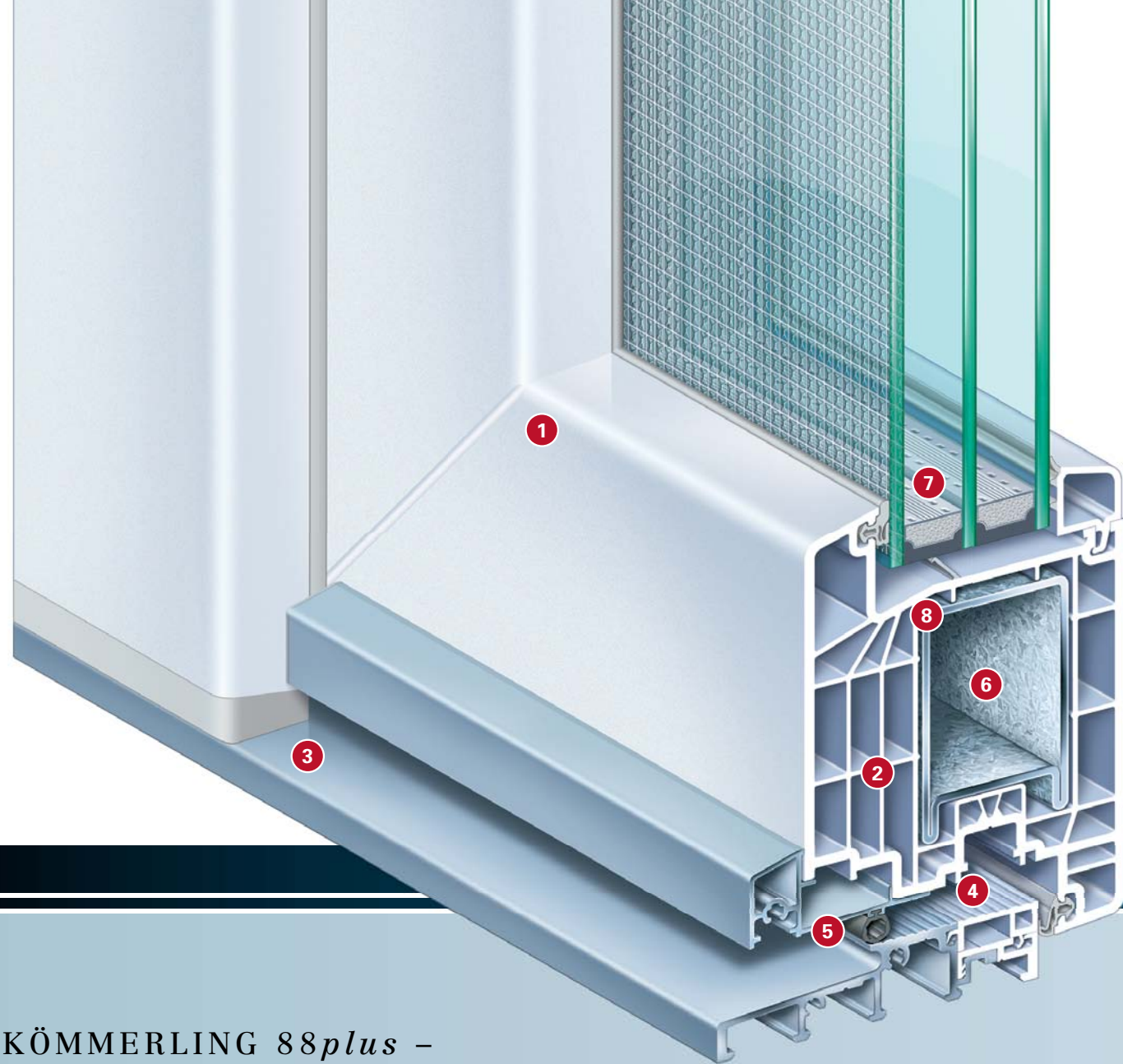
The  $U_f$ -values are available upon request.



\* only available in white.



► KÖMMERLING 88*plus* – residential door systems for your individual needs.

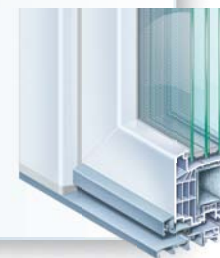


► Design variants

Inward opening residential door

- $U_f$  value — frame/sash =  $1.1 \text{ W/(m}^2\text{K)}^*$
- $U_f$  value — threshold/sash =  $1.7 \text{ W/(m}^2\text{K)}^*$
- EPDM gaskets in grey or black
- Available in white, laminated in plain colours, or woodgrains

\* calculated value



Outward opening residential door

- $U_f$  value — frame/sash =  $1.2 \text{ W/(m}^2\text{K)}^*$
- $U_f$  value — threshold/sash =  $1.9 \text{ W/(m}^2\text{K)}^*$
- EPDM gaskets in grey or black
- Available in white, laminated in plain colours, or woodgrains

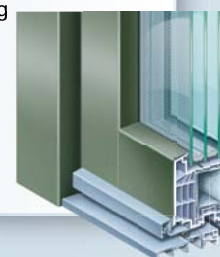
\* calculated value



Inward opening residential door in aluminium look

- Butt jointed aluminium shells in classic design.
- Extraordinary thermal insulation compared with aluminium residential doors.  
 $U_f$  value – frame/sash =  $1.2 \text{ W/(m}^2\text{K)}^*$   
 $U_f$  value – threshold/sash =  $\sim 1.7 \text{ W/(m}^2\text{K)}^*$
- Outside aluminium look, inside neutral white.
- Almost unlimited choice of colour of the aluminium shells due to finishing techniques such as anodising and powder coating.
- Conservation of resources by using only a minimum quantity of aluminium.
- Easy to clean, durable and robust.

\* calculated value



Highly insulating residential door with inter-sash panelling

- Used here is the outward opening sash in conjunction with commercially available residential door panelling. Our example achieved a  $U_d$  value of  $0.77 \text{ W/(m}^2\text{K)}^*$ .

\* calculated value as per DIN EN 10077-2 based on element size 1100 x 2100 mm



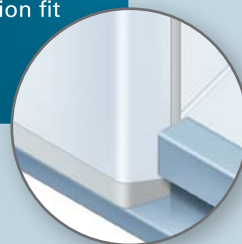
1

- Lineal, recessed design with perfect window profile proportions.



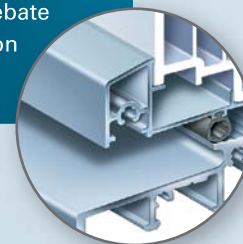
3

- Threshold connector for precision fit and sealing to residential door threshold.



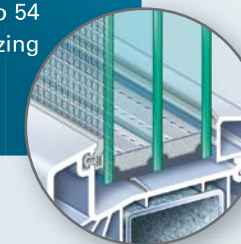
5

- Aluminium weather bar and rebate pad set for additional protection against driving rain.



7

- Wide glazing range from 22 to 54 mm for special functional glazing or residential door panelling.



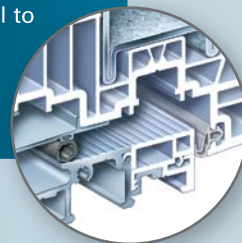
2

- Highly insulating, 5-chamber central thermal sealing system with 88mm construction depth.



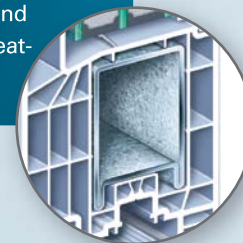
4

- High tightness with double seal to barrier free residential door threshold with thermal break.



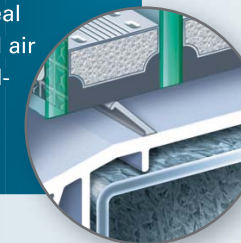
6

- Max sized steel reinforcement and welded corner connector for greater static properties.



8

- The innovative sash rebate seal reduces thermally conditioned air movements and ensures excellent thermal insulation values.





**profine GmbH**  
KÖMMERLING KUNSTSTOFFE

Postfach 2165 · 66929 Pirmasens · Germany  
Tel. +49 6331 56-0 · Fax +49 6331 56-2475  
E-mail: [info@koemmerling.de](mailto:info@koemmerling.de)  
Internet: [www.koemmerling.de](http://www.koemmerling.de)

