



KÖMMERLING 76 Specification Guide



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For more information
www.kommerling.ie



ABOUT KÖMMERLING

Founded in 1897 by Karl Kömmerling, Kömmerling has evolved from a humble manufacturer of adhesives and synthetic rubber into a beacon of innovation in the uPVC products industry. Today, it stands as a premium brand within the Profine Group, renowned for its commitment to quality and excellence across the globe.

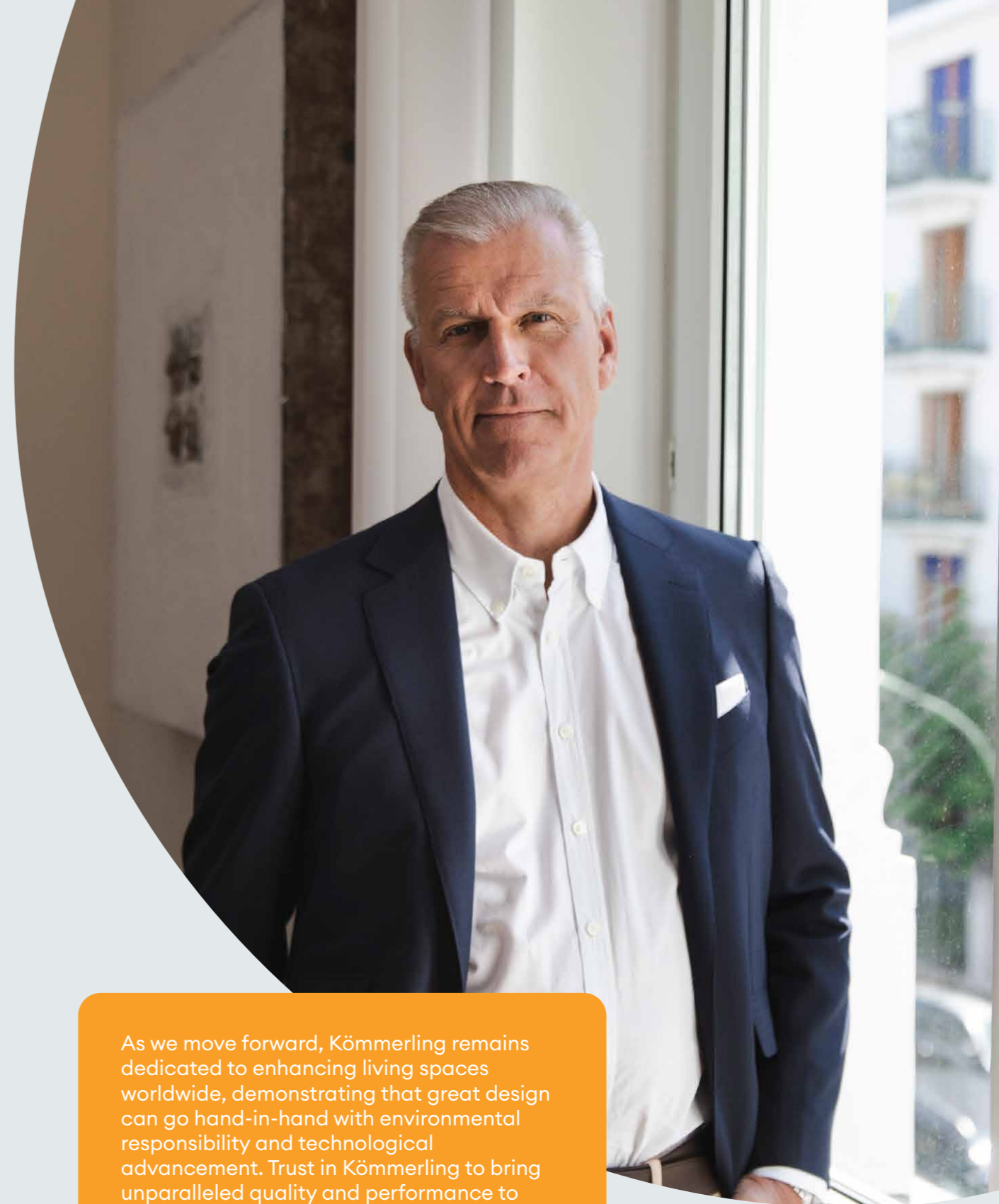
As a leader with a century-spanning legacy, Kömmerling enjoys an unrivalled reputation in the window and door market, offering products that are synonymous with innovation, durability, and aesthetic appeal. The brand's journey through the years has been marked by significant milestones—from starting uPVC roller shutter manufacturing in 1957 to entering the high-quality uPVC window profile market a decade later.

Kömmerling's commitment to excellence is evident in every product, especially highlighted in the KÖMMERLING 76 window system. This system represents the culmination of decades of research and development, incorporating advanced technologies, state-of-the-art CAD and 3D computer modelling, and rigorous testing.

Designed to meet premium demands, Kömmerling products not only stand out for their aesthetic qualities but also excel in technical performance and physical durability, requiring minimal maintenance while offering extended longevity.

With products delivered to around 50 countries worldwide, Kömmerling is not just a choice, it's a global standard for architects and builders seeking the best in uPVC solutions. The brand's commitment to sustainability and innovation continues to set benchmarks in the industry, ensuring that every product from the Kömmerling line meets the highest energy efficiency standards and environmental stewardship.

As we move forward, Kömmerling remains dedicated to enhancing living spaces worldwide, demonstrating that great design can go hand-in-hand with environmental responsibility and technological advancement. Trust in Kömmerling to bring unparalleled quality and performance to your projects, backed by over a century of expertise and a profound understanding of architectural needs.



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PROFILE SYSTEMS

World-class Window & Door Brands
Since 1978

Established in 1978, Profile Systems has grown to become Ireland's leading supplier and exclusive distributor of world-class uPVC and Aluminium window and door brands.

With a commitment to excellence and sustainability, we operate from a modern, purpose-built facility in Co. Kildare, strategically located off the M7 to efficiently serve the largest network of window and door installers across Ireland. Our extensive stockholding capabilities and first-class service ensure that we meet our customers' needs promptly and effectively.



At Profile Systems, we uphold the highest standards of responsible business practices, focusing on energy conservation and environmental protection. For over 25 years, we have been the proud exclusive distributor of the Kömmerring brand, building a robust network of experienced fabricators proficient in designing and installing Kömmerring's top-quality systems.

We take pride in fostering durable and loyal relationships with our customers, suppliers, and team members, reflecting our dedication to excellence in the window and door industry.



KÖMMERLING

Windows that won't cost the Earth

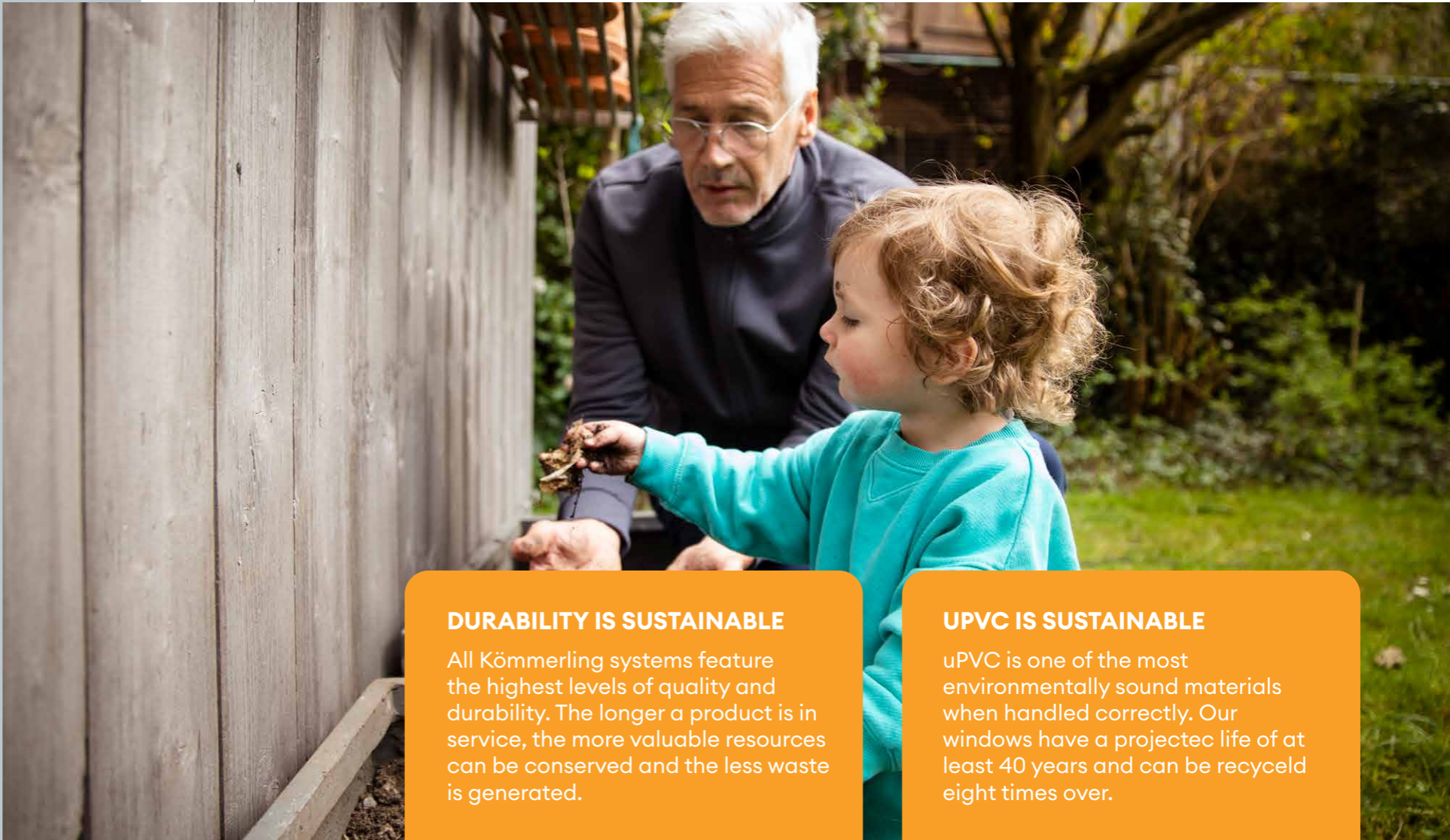
At Kömmerring, sustainability is not just a policy; it's a core part of their product development and lifecycle management. For nearly two decades, their Greenline initiative has led the industry by replacing toxic lead-based stabilisers in virgin uPVC with eco-friendly calcium-zinc alternatives, preventing approximately 6,500 tonnes of lead from entering the environment annually. This is equivalent to over 160 lorry loads each year, demonstrating their commitment to a healthier planet.

Their products are designed with longevity in mind. Kömmerring systems are recognised for their exceptional durability, which extends their service life and significantly reduces environmental impact. With a projected lifespan of at least 40 years, their uPVC windows can be recycled up to eight times, illustrating their commitment to resource conservation and waste reduction.

Kömmerring also leads the creation of closed material loops. At the end of their lifecycle, their products are meticulously recycled, ensuring that they do not harm the environment. Their innovative Kömmerring ReFrame is the first window profile made entirely of recycled uPVC, maintaining the same high-quality features as traditional profiles, including outstanding thermal insulation.

Their commitment to sustainability is further underscored by numerous certifications and initiatives. Kömmerring is a proud participant in VinylPlus®, which awards the VinylPlus® Product Label to PVC building products that meet high sustainability standards. As a founding member of Rewindo, the window recycling initiative, we guarantee the re-utilisation of old uPVC windows, maintaining a closed recycling loop. Additionally, their windows are EPD verified for insulating glazing, ensuring compliance with ISO 14025 and EN 15804 standards. For projects requiring fossil-free materials, their windows meet the rigorous RSB standard (Roundtable on Sustainable Biomaterials), certifying the sustainability of their bio-attributed PVC from raw material to finished profile.

Through these measures, Kömmerring stands at the forefront of sustainable building solutions, dedicated to reducing their ecological footprint while providing products that meet the highest standards of quality and environmental responsibility.



DURABILITY IS SUSTAINABLE
All Kömmerring systems feature the highest levels of quality and durability. The longer a product is in service, the more valuable resources can be conserved and the less waste is generated.

UPVC IS SUSTAINABLE
uPVC is one of the most environmentally sound materials when handled correctly. Our windows have a projected life of at least 40 years and can be recycled eight times over.

MATERIAL LOOPS ARE SUSTAINABLE
Our focus is on closing material loops. We make sure that our products are sent for recycling at the end of their life cycle and don't harm the environment. New high-quality products then contain a high percentage of this recycle.

MADE FROM 100% RECYCLED MATERIAL
Kömmerring ReFrame is the first window profile made out of 100 per cent recycled uPVC. The winner of multiple international awards, this product has a refined surface and elements with the same properties as conventional uPVC windows, such as outstanding thermal insulation properties.

SUSTAINABILITY WITH KÖMMERLING 76

The future of building components is sustainable. Kömmerling is leading the way by drastically reducing CO2 emissions through the use of bio-attributed PVC and recycled materials.

INNOVATIVE MATERIAL

- KÖMMERLING'S BIO-ATTRIBUTED PVC REPLACES FOSSIL RAW MATERIALS WITH RENEWABLE ALTERNATIVES, USING ETHYLENE BASED ON PINE OIL, A BYPRODUCT OF PAPER PRODUCTION FROM SUSTAINABLE FINNISH FORESTRY.

ENVIRONMENTAL IMPACT

- This advancement allows for up to a 90% reduction in CO2 emissions compared to conventional PVC, saving 2kg of CO2 per kg of material used.

QUALITY AND PERFORMANCE

- The bio-attributed PVC is chemically identical to traditional PVC, ensuring the same high-quality performance and specifications.

RECYCLABILITY

- The material is 100% recyclable, contributing to a sustainable cycle for synthetic materials.

CERTIFIED SUSTAINABILITY

- The entire supply chain, from pine oil extraction to the finished PVC profile, meets the strictest RSB standards.



By choosing Kömmerling 76 window profiles, you can significantly contribute to reducing the carbon footprint of their projects, promoting a sustainable future without compromising on quality or performance.



Window profiles based on pine oil instead of crude oil

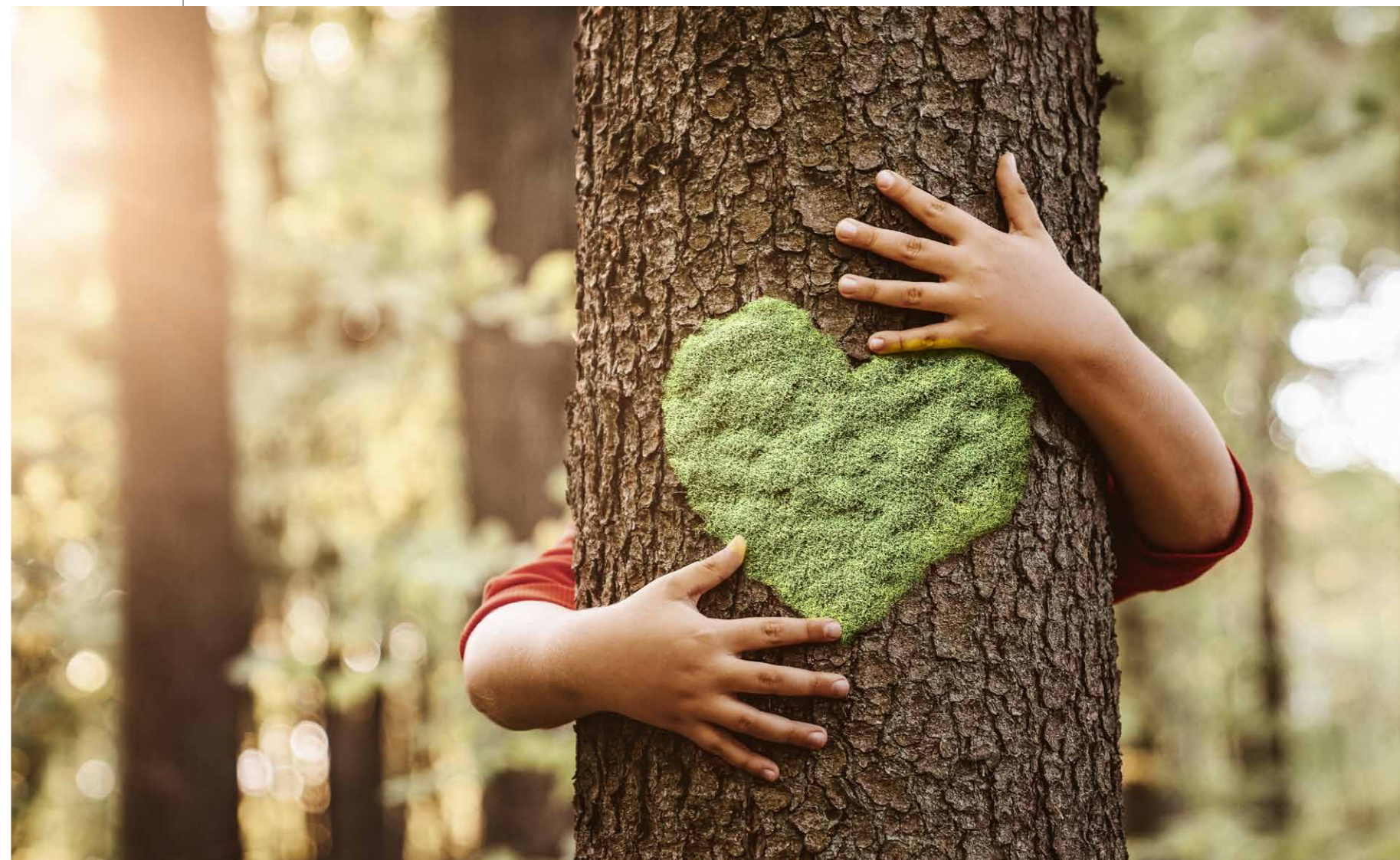
Bio-attributed PVC is a new development in which fossil raw materials are 100% replaced by a renewable alternative, i.e. second generation feedstock which does not compete with food chains.

Bio attributed PVC is made of ethylene, a raw material which is based pine oil, not crude oil. This oil is a waste product from paper production and the wood for it comes from a sustainable Finnish forestry.

greenline

➤ Eco friendly stabilisers

Kömmerring has replaced lead with eco friendly calcium and zinc for its stabilisers – the first manufacturer to do so on the entire sector. Its consistent commitment to sustainability makes Kömmerring 88 a safe investment in the future.



PASSIVE HOUSE

What is a passive house?

Energy saving designs are growing in importance. Today, the passive house is considered objectively to be the most energy efficient form of building: Every year, it consumes no more than 15 kWh of heating energy per square metre of living space, corresponding to 1.5 litres of fuel oil. In other words, it consumes 90% less heating energy than a conventional existing building, and 75% less than an average new building. This high energy efficiency is made possible by the combination of the windows' refined multi-chamber design, airtight construction, triple glazing, controlled ventilation with heat recovery, as well as the passive use of solar irradiation – conventional heating is no longer necessary.

By supplying fresh air regularly at pleasant temperatures, the passive house generates a cosy living climate. And there are virtually no limits to its architectural design as well, including the windows. Unlike earlier, when their design was restricted and the profile sight line presented a chunky appearance, today's intelligent designs with slender profiles and a high percentage of glazed areas give rise to individual design possibilities and more thermal energy gains.

“Passive house” is a clearly defined standard with clearly defined limits. Manufacturers must verify these values for the passive house standard by having their products certified as “passive house compatible components”. The key certification bodies for passive house windows and the passive house institute Dr. Feist and the window technologies institute ift Rosenheim. What are the differences between the certificates from these institutes? What do they have in common?

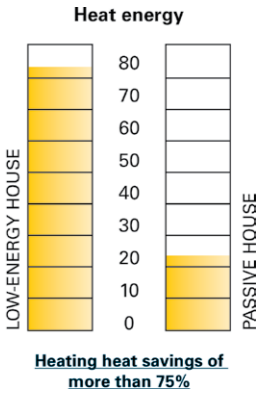
The institute Dr. Feist published its passive house guideline as early as 1992. The ift guideline WA-15/2 was issued in 2011. Both institutes calculate the thermal insulation value for the window frame (U_f value) according to the requirements under DIN EN ISO 10077-2, but with different software. ift not only calculates, but also measures this value using the hot box method. This involves testing the window installed between two chambers kept at different temperatures. The measured value generally approximates better the field conditions than the calculations, which necessarily involve a safety margin. Dr. Feist includes the whole building in its calculations, whereas ift analyses only the window itself.

Milestones in sustainability and energy efficiency:



All in all, however, it is the following that counts: Both institutes assume a total heat transfer coefficient (total U_w value) of max 0.8 for their certification of windows and glass facades. Hence, the one or other certificate verifies the passive house suitability of windows, and is therefore a reliable source for window makers, architects, and developers.

The correct advice and the proper installation of windows are crucial to the efficiency of a passive house. So please contact your qualified specialised window maker near you for all questions about this



PHI-Darmstadt in comparison to IFT-Rosenheim Considerations for the window

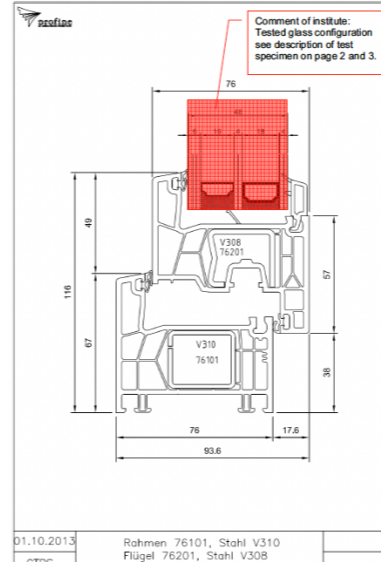


- > Passive House guideline established in 1992
 - > For determination U_f -Value only calculation according to DIN EN ISO 10077-2 is accepted
 - > Calculate by Physibel Bisco of flixo in accordance to DIN EN ISO 10077-2
 - > Complete Residential Building investigated
 - > U_w -Value 0.8 W/(m²K); U_w installed 0.85 W/(m²K)
 - > U_g -Value 0.7 W/(m²K), including warm edge system
- > Passive House guideline WA/15 established in 2010
 - > For determination U_f -Value only calculation and Hotbox-Testing according to DIN EN 12412-2 is accepted (U_f -Value by Hotbox-Result normally better or rather lower than calculating by DIN EN ISO 10077-2)
 - > If calculated we use Software flixo in accordance to DIN EN ISO 10077-2
 - > Only Residential Window investigated
 - > U_w -Value 0.8 W/(m²K); U_w installed 0.85 W/(m²K)
 - > U_g -Value 0.6 W/(m²K) (necessary to achieve U_w 0.8), including warm edge system

ACOUSTIC PERFORMANCE

Improve sound insulation in your home

Good health and a high quality of life are something we all aspire to. Avoiding noise in your home helps to safeguard your physical and mental well-being. After all, excessive noise can lead to illness and cause psychological stress for you and your family. That is particularly true if you live near roads with heavy traffic, railways or in close vicinity to airports.



Comment of institute:
Tested glass configuration
see description of test
specimen on page 2 and 3.

01.10.2013 Rahmen 76101, Stahl V310
CTPS Flügel 76201, Stahl V308

Sound reduction index according to ISO 10140 - 2

Laboratory measurements of airborne sound insulation of building components

Client: prof. GmbH
Kömmering Kunststoffe, 66954 Pirmasens (Germany)

Product designation: KBE 76 AD, KÖMMERLING 76 AD, TROCAL 76 AD

Design of test specimen:
Single window, one leaf
Overall dimension: 1,230 mm x 1,480 mm
Material: Plastic, PVC-U
Type of opening: Tilt and turn
Robust seal: external seal, 1 internal seal
Locking: On top 2, at bottom 2, on large side 2, on lock side 2
Filling: 14 LSG 58/2410 LSG SI
Gas filling in cavity: Argon

Test date: 25 September 2013
Test surface S: 1,25 m x 1,50 m = 1,88 m²
Test rig: as per EN ISO 10140-5
Partition wall: Double-leaf concrete wall, insert frame
Test noise: pink noise
Volume of test rooms: $V_1 = 104 \text{ m}^3$
 $V_2 = 457 \text{ m}^3$
Maximum sound reduction index: $R_{w, \text{max}} = 60 \text{ dB}$ (related to test area)
Mounting conditions: External butt-mounted in test opening and fixed by wedges. Connecting joints filled with foam and sealed with plastic sealants on both sides.
Climate in test rooms: 20 °C / 55 % RH
State of exposure: 95% R₅₀

| f in Hz | R in dB |
|---------|---------|
| 50 | 36.5 |
| 63 | 29.2 |
| 80 | 26.2 |
| 100 | 34.8 |
| 125 | 37.3 |
| 160 | 39.8 |
| 200 | 38.4 |
| 250 | 42.4 |
| 315 | 42.6 |
| 400 | 43.5 |
| 500 | 45.1 |
| 630 | 46.8 |
| 800 | 47.6 |
| 1,000 | 48.0 |
| 1,250 | 48.7 |
| 1,600 | 48.5 |
| 2,000 | 47.9 |
| 2,500 | 48.3 |
| 3,150 | 48.1 |
| 4,000 | 48.4 |
| 5,000 | 51.4 |

Rating according to EN ISO 717-1 (in third octave bands):
 $R_w (C; C_{80}) = 47 (0; -2) \text{ dB}$ $C_{80, \text{max}} = -1 \text{ dB}$ $C_{80, \text{min}} = 0 \text{ dB}$ $C_{50, \text{max}} = 0 \text{ dB}$ $C_{50, \text{min}} = -5 \text{ dB}$ $C_{50, \text{avg}} = -2 \text{ dB}$ $C_{50, \text{min}} = -5 \text{ dB}$

Test report no. 13-00222-PR01 (PB Z1227-401-04-en-04)
Page 19 of 30 Data sheet no. 7, Record no. 227
if Rosenheim
Laboratory for Building Acoustics
15th February 2017

Evidence of test report

Airborne sound insulation of building components

Test report
No. 13-00222-PR01
(PB Z1227-401-04-en-04)

Client: prof. GmbH
Kömmering Kunststoffe
Zweibrücker Str. 200
66954 Pirmasens
Germany

Product: Single window, one leaf
KBE 76 AD
KÖMMERLING 76 AD, TROCAL 76 AD

Overall dimension: 1,230 mm x 1,480 mm
Material: Plastic, PVC-U, with steel - reinforcement profiles
V310/V308

Type of opening: Tilt and turn

Robust seal: 1 external seal, 1 internal seal
Insulating glass unit, testing of different variants according to table 1

Climate: 20 °C

Weighted sound reduction index R_w
Spectrum adaptation terms C and C_{80}
 $R_w (C; C_{80})$ According to table 1

if Rosenheim
15.02.2017

Bernard S. J. P. Rosen
Head of Laboratory
Building Acoustics

Andreas P. Rosen
Head of Laboratory
Building Acoustics

Sound reduction index:

| Noise in decibels: | Level of traffic: | Distance of house from road: |
|--------------------|--|------------------------------|
| 25 – 29 dB | Residential street with 10 – 50 cars per hour | > 35 m |
| 30 – 34 dB | Residential street with 10 – 50 cars per hour | 26 – 35 m |
| 35 – 39 dB | Residential street with 50 – 200 cars per hour | 26 – 35 m |
| 40 – 44 dB | Main road with 1,000 – 3,000 cars per hour | 100 – 300 m |
| 45 – 49 dB | Main road with 1,000 – 3,000 cars per hour | 36 – 100 m |
| > 50 dB | Main road with 3,000 – 5,000 cars per hour | < 100 m |

Source: prof. GmbH

The **sound reduction index** describes how good an individual building unit blocks noise from outside. Example: Windows with a sound reduction index of 40 decibels reduce noise levels transmitted through them by 40 decibels.



Enjoy the silence and your well-being

Optimal quality of life includes a quiet, low-noise environment - you probably experience it yourself every day. Windows from Kömmering 76 centre seal series support you in creating this perfect relaxing environment thanks to innovative sealing technology for the profiles and sound-insulating glass. This way, you can transform your home into an oasis of calm, even when the traffic is roaring by outside.



SPECIFICATION SUPPORT

The Specification of the Kömmerling systems are supported by the team at Profile Systems.



<https://www.kommerling.ie/get-in-touch/>



KÖMMERLING - PIONEERING THE FUTURE OF WINDOWS AND DOORS

By choosing Kömmerling, architects in Ireland can trust in their legacy of quality and innovation to provide window and door solutions that are not only aesthetically pleasing but also at the forefront of environmental and technical advancements.

INNOVATIVE MATERIALS AND DESIGN



Kömmerling sets the standard for future building solutions using advanced uPVC, enhanced with eco-friendly calcium-zinc stabilisers instead of traditional lead-based ones. This innovative approach not only ensures durability and excellent thermal efficiency but also supports sustainable construction practices.

Kömmerling's profiles, designed with a focus on sleek, modern aesthetics, offer a variety of colours and finishes that align with traditional and contemporary architectural demands. These design options, coupled with slim sightlines and expansive glass areas, maximise natural light and meet the aesthetic needs of today's architectural trends.

ENERGY EFFICIENCY AND ENVIRONMENTAL STEWARDSHIP



At the core of Kömmerling's product philosophy is a commitment to energy conservation. Their multi-chamber window and door systems are meticulously engineered to provide superior insulation, reducing energy costs and enhancing indoor comfort. Kömmerling's Greenline initiative exemplifies their dedication to environmental responsibility, promoting the use of recyclable materials and minimising ecological impact throughout the product lifecycle.

ADVANCED PERFORMANCE



Features Kömmerling windows and doors incorporate cutting-edge features tailored to the specific climatic and security requirements of the Irish market. From enhanced burglary resistance to superior weatherproofing and noise reduction capabilities, their products ensure safety, tranquillity, and resilience against harsh weather conditions.

CERTIFICATIONS AND COMPLIANCE



Kömmerling's commitment to quality is reflected in their adherence to stringent national and international standards. Their products are not only EPD verified but also carry the VinylPlus® Product Label, underscoring their dedication to sustainable production practices. These certifications assure architects and clients of their product's compliance with the highest industry standards for environmental and construction excellence.

GLOBAL EXPERTISE, LOCAL IMPACT



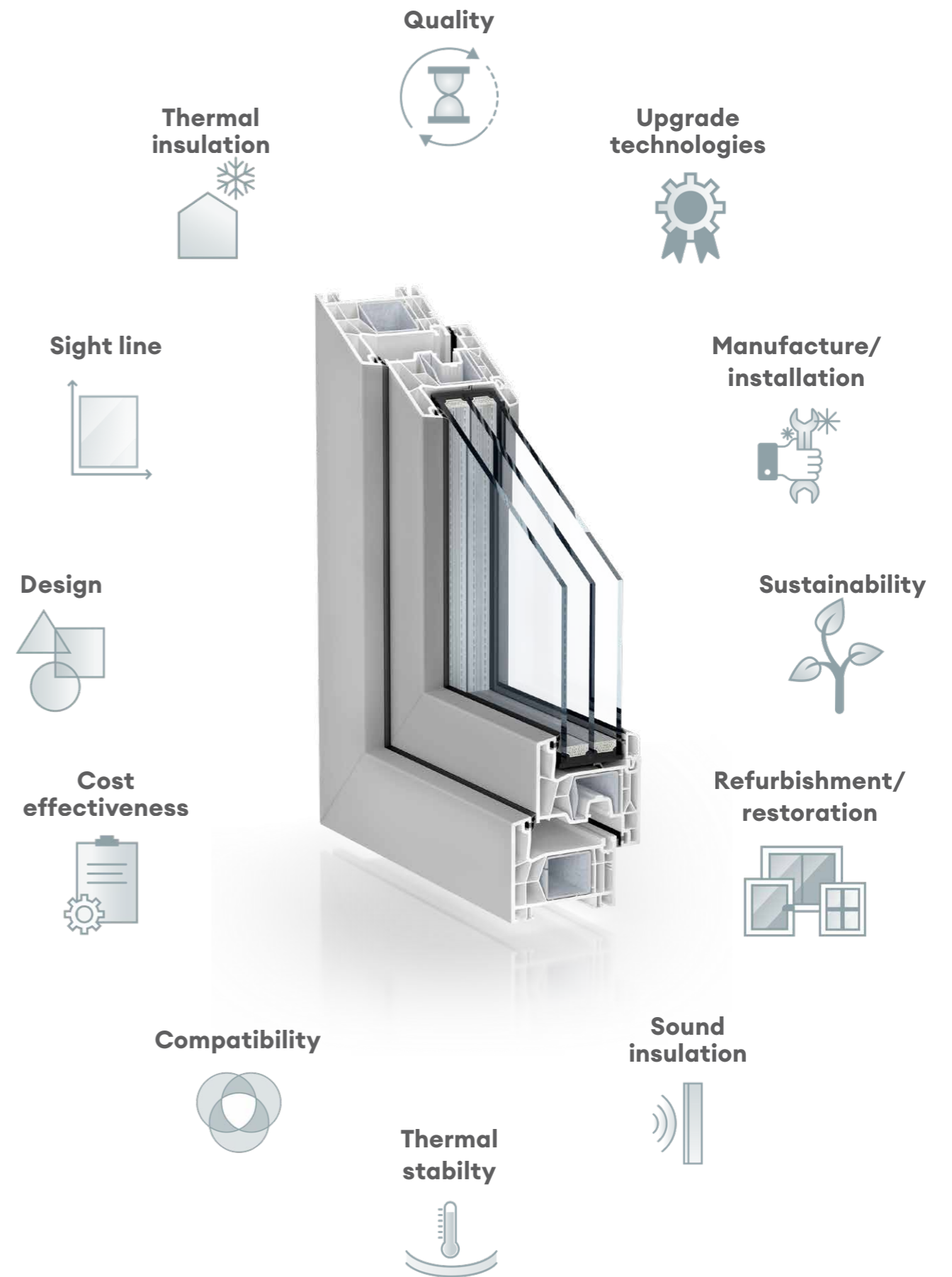
With over a century of innovation, Kömmerling has established a formidable presence in the global market. Their extensive experience enables us to offer solutions that are both globally inspired and locally applicable, ensuring that each project achieves its unique vision with the highest level of craftsmanship and functional performance.



THE WINDOW THAT CAN SIMPLY DO MORE

Kömmerling 76 double seal for future-proof perspectives

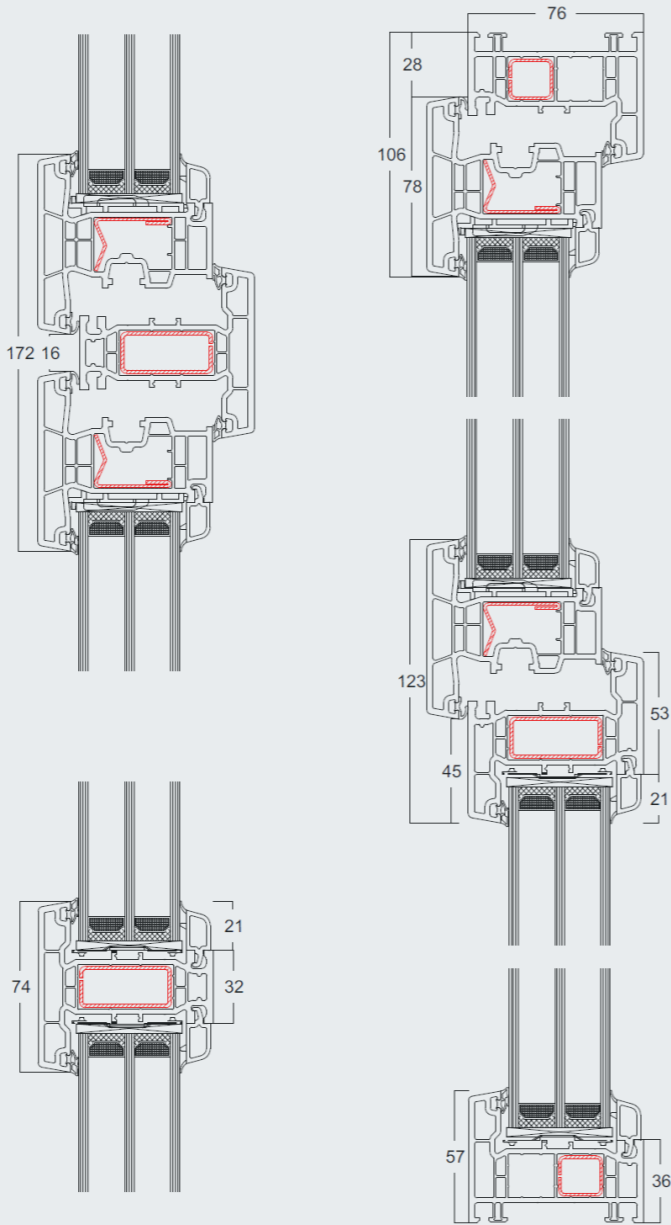
Kömmerling 76 double seal windows and doors mean that you are thinking about tomorrow today. They are true all-rounders and geared towards sustainability. These window solutions have excellent features and are carefully considered down to the smallest detail. Their excellent insulation values mean that the windows not only create a feel-good climate for you, but also for nature – because they even conserve resources. And, thanks to their top quality and innovative technologies, Kömmerling 76 double seal windows and doors can withstand a lot and are particularly robust. In short, they offer comfort, environmental protection and value retention all in one.



76 STD CASEMENT WINDOW SYSTEM

HIGHLIGHTS

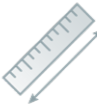
- > Open out window system
- > Glazing thickness options, 28-50mm
- > Frame sizes 57, 67 and 85mm
- > Transom/Mullion sizes 74, 84 and 110mm
- > Profile range can be constructed to form fixed and opening lights
- > Optional centre seal available for 57mm frame to help with thermal performance
- > Max top hung size 1200x1400mm
- > Max side hung size 900x1600mm
- > Full range of ancillary profiles available to accommodate a range of installations



Super strength profiles = large panel sizes
Max top hung size 1200x1400mm, max side hung size 900x1600mm.



Thermal insulation value
 $U_f = 0.79 \text{ W/(m}^2\text{K)}$



Weight reduction
Weights approx. 25% less compared to sashes with steel.



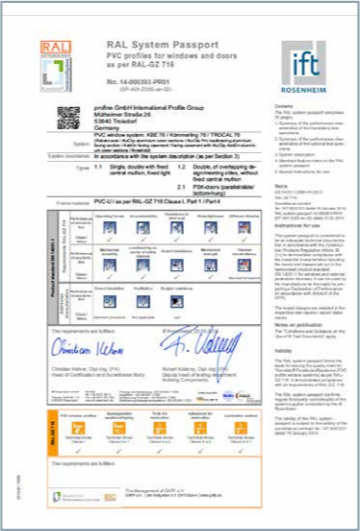
Standardised manufacture
No additional steps required.



Sustainability
Intelligent recycling process. All of the materials are reused.

U_w
1.2
 $\text{W/m}^2\text{K}$
double glaze

U_w
0.79
 $\text{W/m}^2\text{K}$
triple glaze



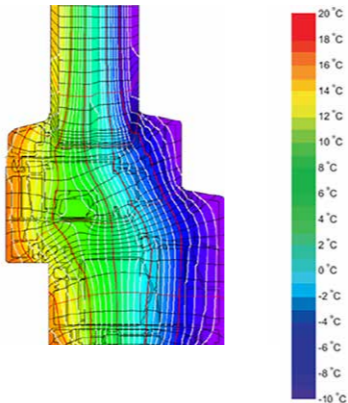
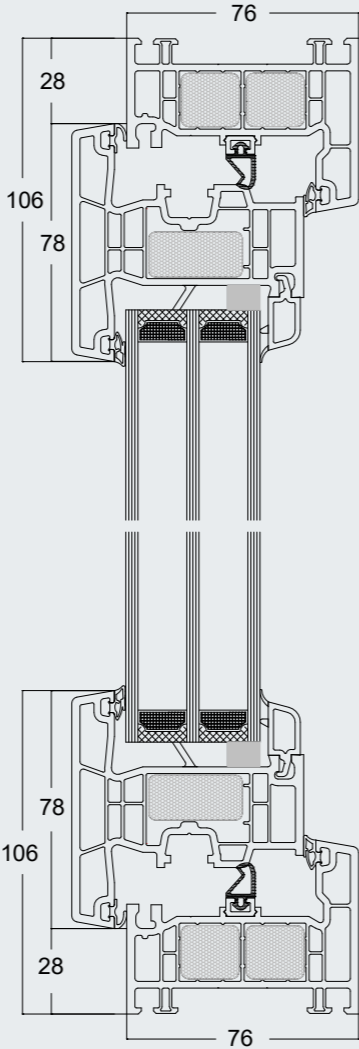
Performance details:

| | |
|-----------|--|
| Wind load | Class C4 |
| Air | Class 4 |
| Water | Class 9A |
| Acoustic | Rw up to 45dB (depending on glass used) |
| U value | 1.2 W/m ² K double glazed and 0.79 W/m ² K triple glazed |

76 CASEMENT - PASSIVE HOUSE

HIGHLIGHTS

- > Open out window system
- > Glazing thickness options, 28-50mm
- > Frame sizes 57, 67 and 85mm
- > Transom/Mullion sizes 74, 84 and 110mm
- > Profile range can be constructed to form fixed and opening lights
- > Optional centre seal available for 57mm frame to help with thermal performance
- > Max top hung size 1200x1400mm
- > Max side hung size 900x1600mm
- > Full range of ancillary profiles available to accommodate a range of installations



Super strength profiles = large panel sizes
Max top hung size 1200x1400mm, max side hung size 900x1600mm.



Thermal insulation value
 $U_w = 0,77 \text{ W/m}^2\text{K}$



Weight reduction
Weighs approx. 25% less compared to sashes with steel.



Standardised manufacture
No additional steps required.



Sustainability

U_w
0.77
 $\text{W/m}^2\text{K}$
triple glaze

Performance details:

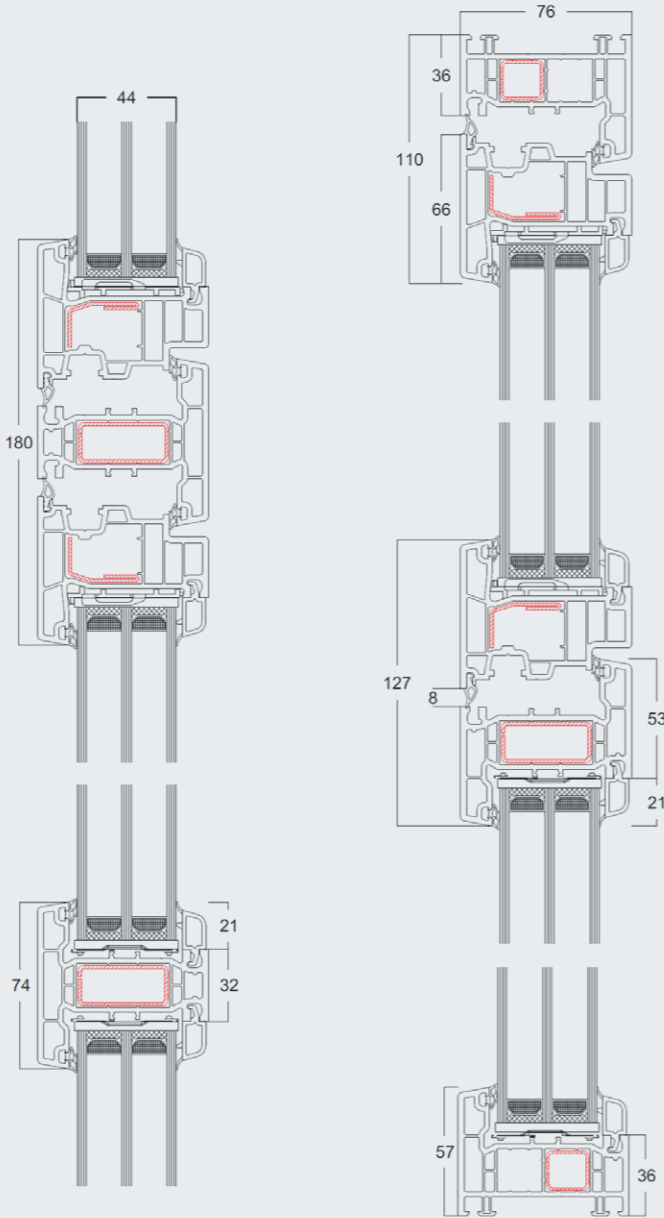
| | |
|-----------|---|
| Wind load | Class C5 |
| Air | Class 4 |
| Water | Class 9A |
| Acoustic | Rw up to 45dB (depending on glass used) |
| U value | 0.77 W/m ² K triple glazed |



76 FLUSH CASEMENT WINDOW SYSTEM

HIGHLIGHTS

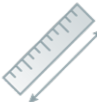
- > Open out window system
- > Glazing thickness options, 28-50mm
- > Frame sizes 57, 67 and 85mm
- > Transom/Mullion sizes 74, 84 and 110mm
- > Profile range can be constructed to form
 - > fixed and opening lights
- > Optional centre seal available for 57mm frame to help with thermal performance
- > Sash is flush both internally and externally
- > Max top hung size 1200x1400mm
- > Max side hung size 900x1600mm
- > Full range of ancillary profiles available to accommodate a range of installations



Super strength profiles = large panel sizes
Max top hung size 1200x1400mm, max side hung size 900x1600mm.



Thermal insulation value
 $U_f = 0.79 \text{ W/(m}^2\text{K)}$



Weight reduction
Weights approx. 25% less compared to sashes with steel.



Standardised manufacture
No additional steps required.



Sustainability
Intelligent recycling process. All of the materials are reused.

U_w
1.2
 $\text{W/m}^2\text{K}$
double glaze

U_w
0.79
 $\text{W/m}^2\text{K}$
triple glaze

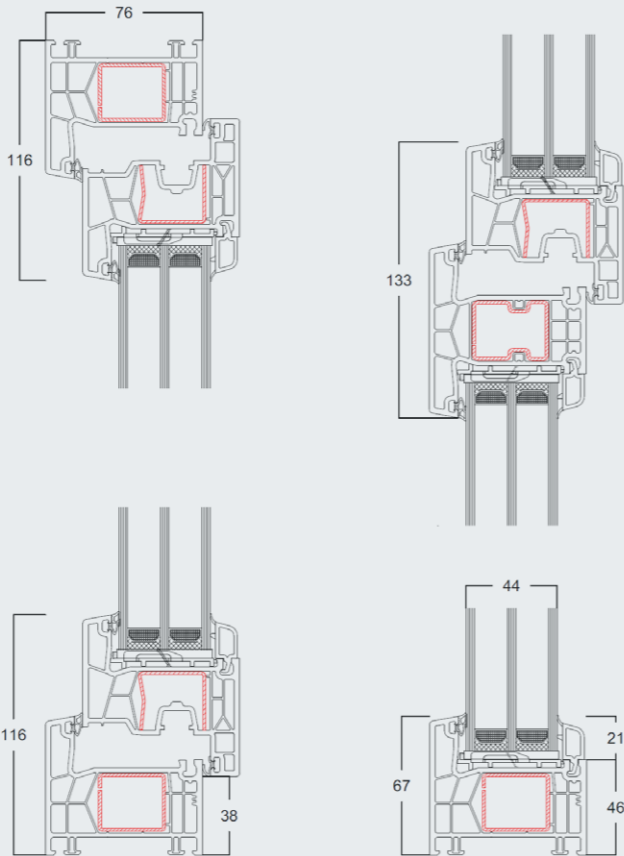
Performance details:

| | |
|-----------|--|
| Wind load | Class C3 |
| Air | Class 2 |
| Water | Class 3A |
| Acoustic | Rw up to 45dB (depending on glass used) |
| U value | 1.2 W/m ² K double glazed and 0.79 W/m ² K triple glazed |

76 TILT AND TURN WINDOW SYSTEM

HIGHLIGHTS

- > Open in design
- > Glazing thickness options, 28-50mm
- > Frame sizes 57, 67 and 85mm
- > Transom/Mullion sizes 74, 84 and 110mm
- > Profile range can be constructed to form fixed and opening lights
- > Max height 2500mm (depending on sash profile used)
- > Max width 1000mm
- > Full range of ancillary profiles available to accommodate a range of installations



Super strength profiles = large panel sizes
Max height 2500mm (depending on sash profile used), max width 1000mm.



Thermal insulation value
 $U_f = 0.79 \text{ W/(m}^2\text{K)}$



Weight reduction
Weights approx. 25% less compared to sashes with steel.



Standardised manufacture
No additional steps required.



Sustainability
Intelligent recycling process. All of the materials are reused.

U_w
1.2
 $\text{W/m}^2\text{K}$
double glaze

U_w
0.75
 $\text{W/m}^2\text{K}$
triple glaze

Performance details:

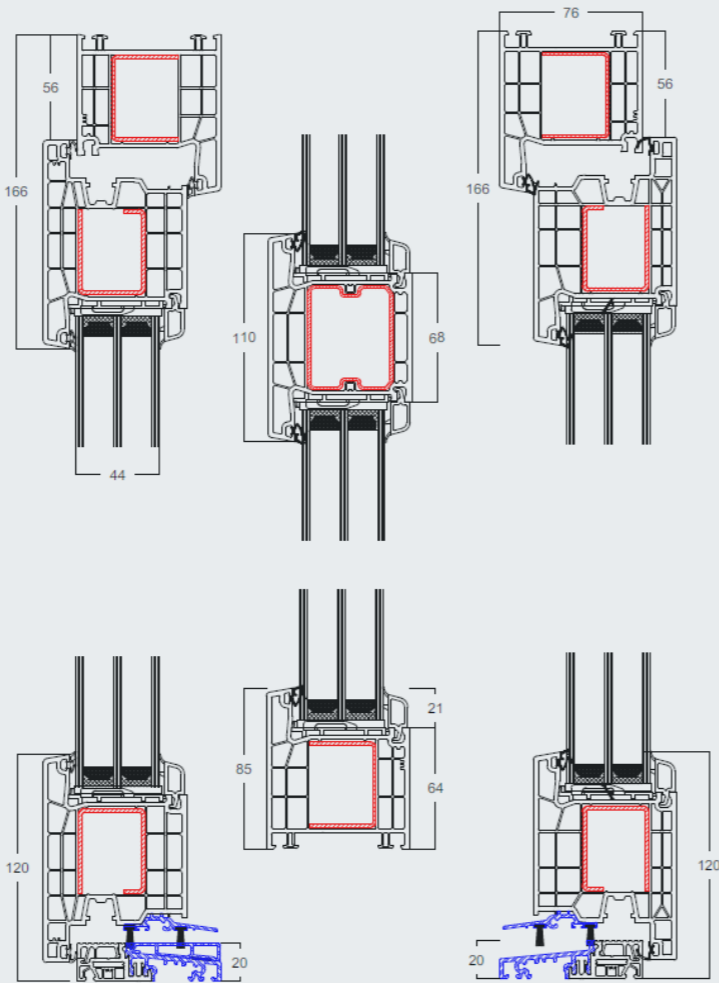
| | |
|-----------|--|
| Wind load | Class C5/B5 |
| Air | Class 4 |
| Water | Class 9A |
| Acoustic | Rw up to 45dB (depending on glass used) |
| U value | 1.2 $\text{W/m}^2\text{K}$ double glazed and 0.75 $\text{W/m}^2\text{K}$ triple glazed |



76 SINGLE DOOR SYSTEM

HIGHLIGHTS

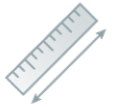
- > Open in or open out options
- > Glazing thickness options, 28-50mm
- > Frame sizes 57, 67 and 85mm
- > Transom/Mullion sizes 74, 84 and 110mm
- > Profile range can be constructed to form fixed and opening lights
- > Sash corner cleat can be used for extra durability
- > Max height 2500mm
- > Max width 1200mm
- > Low aluminium threshold available
- > Full range of ancillary profiles available to accommodate a range of installations



Super strength profiles = large panel sizes
Max height 2500mm, max width 1200mm.



Thermal insulation value
 $U_f = 0.79 \text{ W/(m}^2\text{K)}$



Weight reduction
Weights approx. 25% less compared to sashes with steel.



Standardised manufacture
No additional steps required.



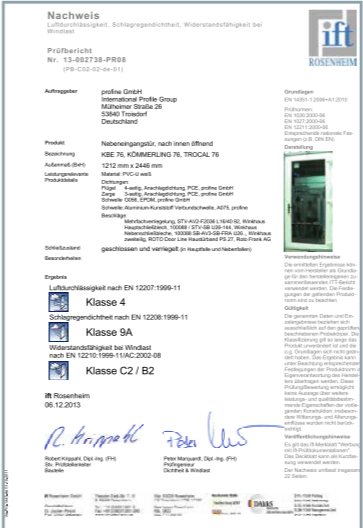
Sustainability
Intelligent recycling process. All of the materials are reused.

U_w
1.2
 $\text{W/m}^2\text{K}$
double glaze

U_w
0.83
 $\text{W/m}^2\text{K}$
triple glaze

Performance details:

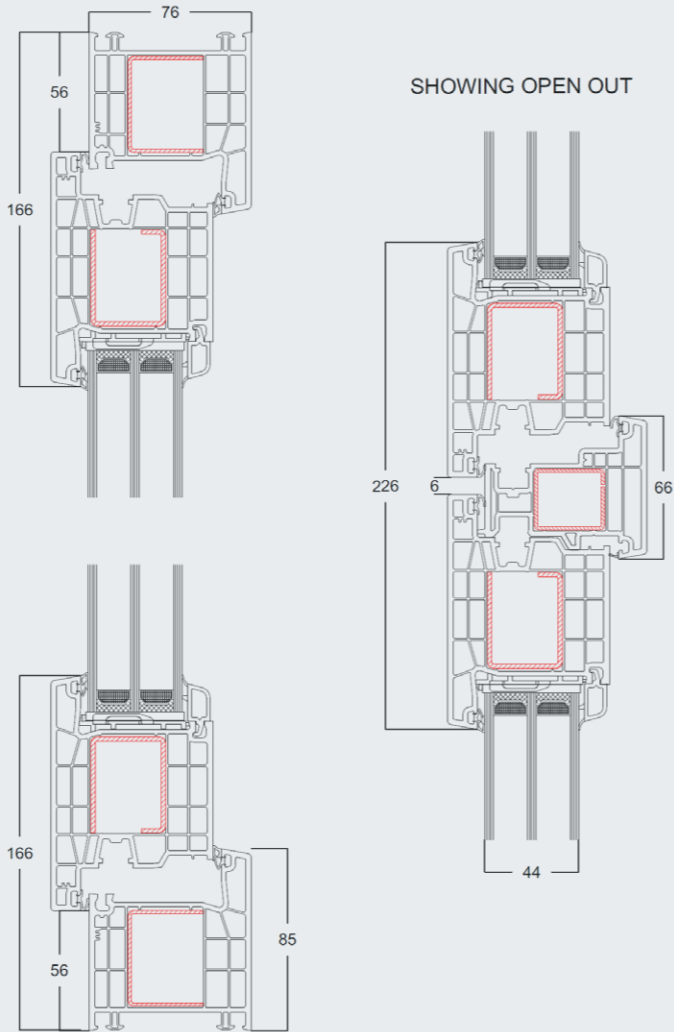
| | |
|-----------|--|
| Wind load | Class C5/B5 |
| Air | Class 4 |
| Water | Class 9A |
| Acoustic | Rw up to 45dB (depending on glass used) |
| U value | 1.2 W/m ² K double glazed and 0.83 W/m ² K triple glazed |



76 DOUBLE DOOR SYSTEM

HIGHLIGHTS

- > Open in or open out options
- > Glazing thickness options, 28-50mm
- > Frame sizes 57, 67 and 85mm
- > Transom/Mullion sizes 74, 84 and 110mm
- > Profile range can be constructed to form fixed and opening lights
- > Sash corner cleat can be used for extra durability
- > Max height 2500mm
- > Max width 1100mm
- > Low aluminium threshold available
- > Full range of ancillary profiles available to accommodate a range of installations



Super strength profiles = large panel sizes
Max height 2500mm, max width 1100mm.



Thermal insulation value
 $U_f = 0.79 \text{ W/(m}^2\text{K)}$



Weight reduction
Weights approx. 25% less compared to sashes with steel.



Standardised manufacture
No additional steps required.



Sustainability
Intelligent recycling process. All of the materials are reused.

U_w
1.2
 $\text{W/m}^2\text{K}$
double glaze

U_w
0.82
 $\text{W/m}^2\text{K}$
triple glaze



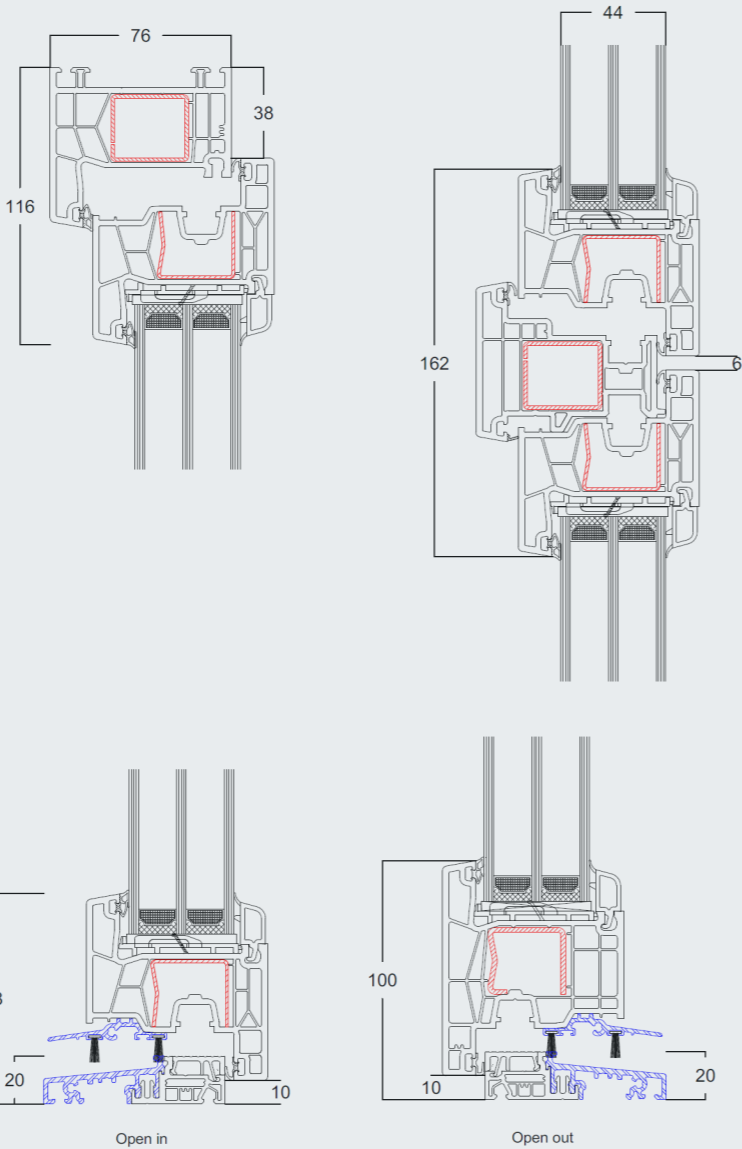
Performance details:

| | |
|-----------|--|
| Wind load | Class C5/B5 |
| Air | Class 4 |
| Water | Class 9A |
| Acoustic | Rw up to 45dB (depending on glass used) |
| U value | 1.2 W/m ² K double glazed and 0.82 W/m ² K triple glazed |

76 TILT AND TURN BALCONY SYSTEM

HIGHLIGHTS

- > Open in or open out design
- > Open in can be used with Juliet balcony applications.
- > Glazing thickness options, 28-50mm
- > Frame sizes 57, 67 and 85mm
- > Transom/Mullion sizes 74, 84 and 110mm
- > Profile range can be constructed to form fixed and opening lights
- > Max height 2500mm (depending on sash profile used)
- > Max width 1000mm
- > Low aluminium threshold available
- > Full range of ancillary profiles available to accommodate a range of installations



- Super strength profiles = large panel sizes**
Max height 2500mm (depending on sash profile used), max width 1000mm.
- Thermal insulation value**
 $U_f = 0.79 \text{ W/(m}^2\text{K)}$
- Weight reduction**
Weights approx. 25% less compared to sashes with steel.
- Standardised manufacture**
No additional steps required.
- Sustainability**
Intelligent recycling process. All of the materials are reused.

Uw
1.2
W/m²K
double glaze

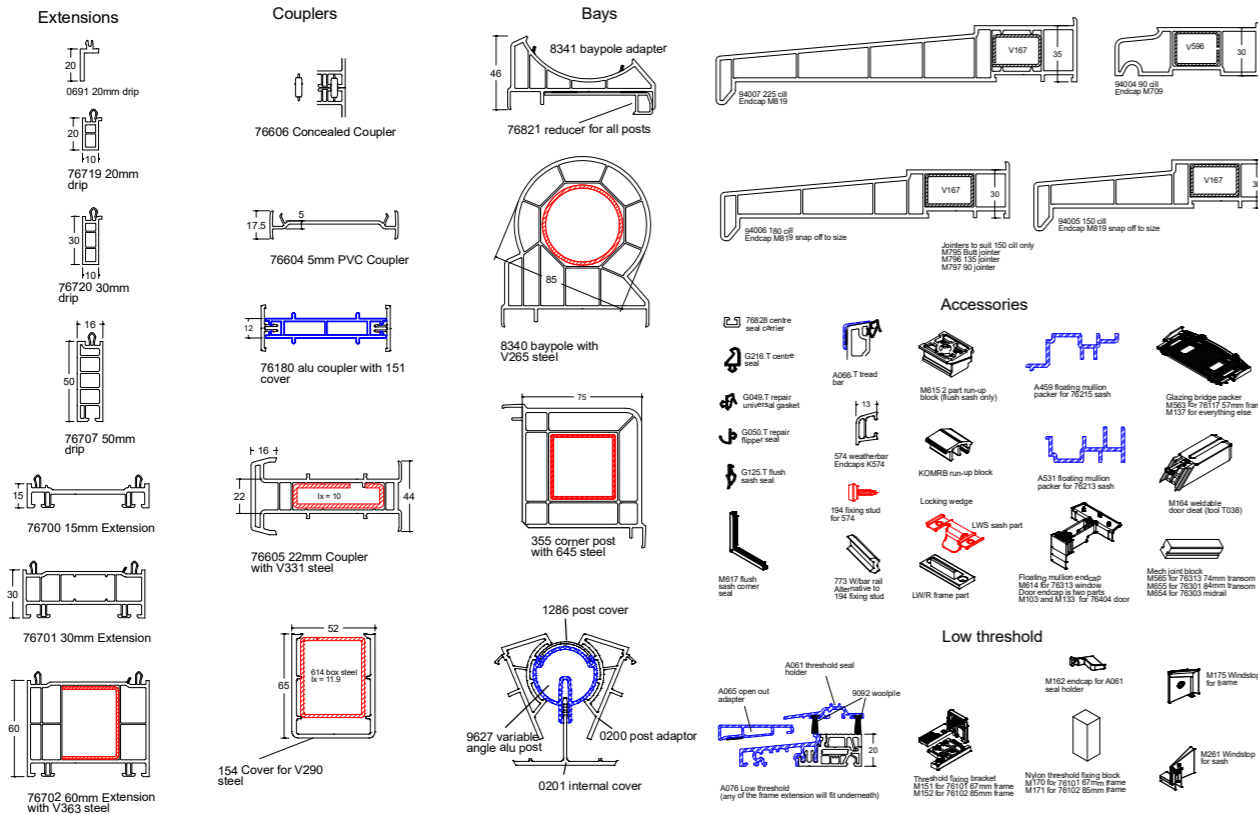
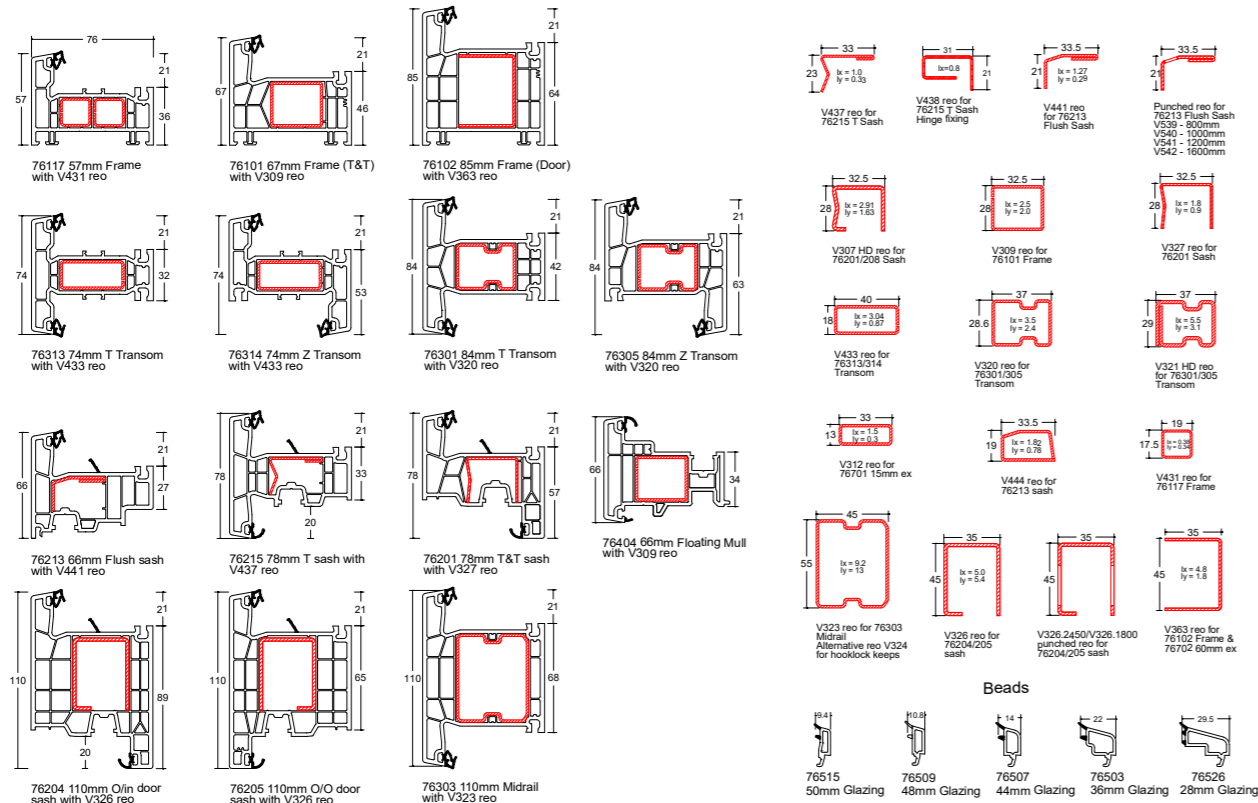
Uw
0.75
W/m²K
triple glaze

Performance details:

| | |
|-----------|---|
| Wind load | Class C5/B5 |
| Air | Class 4 |
| Water | Class 9A |
| Acoustic | Rw up to 47dB (depending on glass used) |
| U value | 1.2 w double glazed and 0.75w triple glazed |



CHARTS



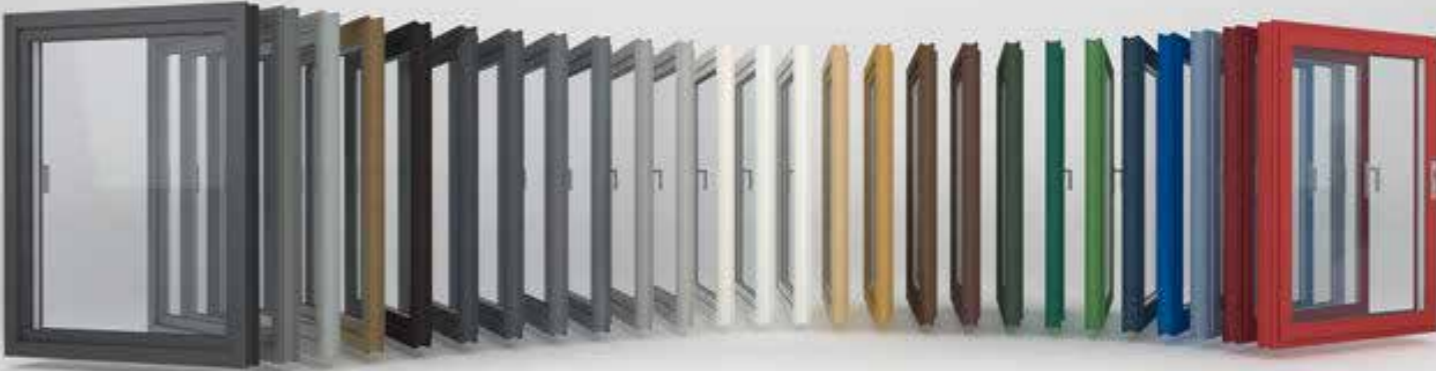
COLOUR RANGE

- > Dual colour options
- > Standard Colour – 80 no.
- > Project specific Colours extensive range available of RAL references
- > Four base profile options. (White/Brown/Grey/Cream)
- > Smooth and grain foil options
- > Metallic Finishes (Available on request)



FIND YOUR PERFECT COLOUR AND FINISH
THE CHOICE IS YOURS

Gone are the days when you could have any colour of pvcu window you like, so long as it's white. The Kömmerling 76 system offers you a whole world of colour choices and finishes - from the traditional to the contemporary. From the bold to the understated, and everything in-between.



NOTES



**Profile
Systems** 
WORLD-CLASS WINDOW & DOOR BRANDS SINCE 1978

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