



# SPECIFICATION GUIDE

PVC-U WINDOWS & DOORS SYSTEMS

[www.aluplast.co.uk](http://www.aluplast.co.uk)



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Established in 1982 in Germany, today aluplast is one of the world's leading extruders of premium quality PVC-U window and door products with 28 production plants and sales offices and more than 1,400 employees. aluplast supplies more than 1,600 fabricating customers in different countries, producing nearly ten million windows per year. Its global scale puts aluplast at the forefront of innovation in energy efficient and sustainable PVC-U window and door systems.

aluplast has announced a multi-million-pound investment programme more than doubling capacity within its extrusion and warehousing operations. This builds on its existing 60,000m<sup>2</sup> state-of-the-art manufacturing facility, with the development of a new 13-hectare site in Poland.

In addition, aluplast is also in doubling capacity at its headquarters in Karlsruhe, further increasing the German system's house's European and global manufacturing capability.

The investment programme is part of aluplast's commitment to long term growth. The investment aluplast is making delivers direct benefit to its cus-

tomers here in the UK and Ireland, driving forward global leading product innovation while underpinning it with continuous improvement in quality and service.

Processing approaching 200,000 tonnes of PVC-U globally annually, which is equivalent to 75 per cent of the whole UK and Irish markets combined and with its worldwide customer base manufacturing more than 10 million windows per year, aluplast is one of the world's largest PVC-U systems houses. Despite this it remains a family-run and privately-owned business, something that delivers major benefits to aluplast customers.

# 38 years of experience

A strict product policy, close cooperation with our partners, flexibility and innovation have made us what we are today: Within only a few years aluplast has grown into the most successful enterprise in the sector. aluplast has always been a family business and will remain so in the future.

## Our Philosophy - four ingredients for success

### Innovation

Constant development and innovation is the key to our success. Every year, aluplast proudly presents market-driven product innovations. We analyse current markets to create products that satisfy demand in order to meet our customers' expectations.

### Flexibility

Flexibility is our greatest strength! Short communication channels, flat hierarchies and lean structures allow us to respond rapidly and dynamically to customer demands and market requirements.

### Partnership

Our customers, partners and the whole aluplast staff are the centrepiece and the driving force of our velocity. Close partnership and cooperation between the aluplast headquarters and our many different production plants and sales offices all over the world form a synergy beneficial to everyone.

### Compatibility

"Compatibility" is the magic word of our product policy. aluplast products are designed to match each other and can be combined with a wide range of auxiliary profiles.

When you choose aluplast you get the best of both worlds: the kind of knowledge and attention to detail that can only be provided by a local specialist together with the backing of a leading international brand.



# Sustainability

Economic. Social. Environmental.

aluplast PVC-U window systems live up to what they promise: An outstanding product quality and a long service life contribute actively to the conservation of the natural environment.





## Sustainability and Eco-Management

An ecologically sound production process as well as a sustainable designed work place form a crucial part of the aluplast eco guidelines, which are reflected in our environment-friendly products and processes manufactured under strict European legislation.

For our energy management system we are certified according to ISO 50001. Among other things, we were able to significantly reduce our energy consumption through the energetic optimization of our production facilities and other measures. That means: We produce from plants with the lowest energy consumption in Europe.

## Emphasis on Recycling

The raw materials used for our window profiles are based on a calcium-organic chemical compound that is strictly lead-free. With this eco-friendly attitude and our involvement in VINYL 2010 Project, which promotes the use of recycled materials in our profiles. Aluplast offers window systems that can be fabricated and recycled in an ecologically managed system.

## Responsibility towards People and the Environment

aluplast assumes responsibility for people and the environment and, together with customers and partners, contributes actively to the protection of our natural environment!

## Ecotech

Ecotech delivers a step-change in the use of recycled material and content in a new generation of sustainable and energy efficient PVC-U windows and doors.

We extrude recycled and virgin material simultaneously through a single die to create a single profile. This locks recycled material away from areas of the frame visible to the end-user or which perform a structural role.

It allows us to utilise recycled content, but also to guarantee surface appearance and finish quality and depth of gloss. The surface is perfect – no pits, no extrusion lines.

With an A, A+ and even an A++ rating for material type from the Building Research Establishment in its Green Guide, it makes the eco-tech among the UK's most sustainable window and door system options.



## BENEFITS



Our focus on innovation converts into a direct commercial advantage for our customers. You benefit from our know-how.



### Profile Systems

We bring some of the world's most technically advanced PVCu systems to the UK, that are designed to win you business.



### Innovative Products

Utilising our profile systems we are able to also offer some of the world's most innovative PVCu product systems to the UK.



### Commitment to Quality

We offer unparalleled commitment to product quality and the outstanding value for money.



### Service and support

Dedicated service and technical support from an experienced team of UK window industry professionals, helping your business grow.



### UK-based Distribution

With a dedicated UK distribution from a purpose-built warehousing unit in Tewkesbury, Gloucestershire we offer some of the industry's most competitive lead times.



### Managing the change

We make the process of switching systems simple and painless, offering you a transition and induction plan that's catered to and right, for you and your team.



# Accreditations



The aluplast IDEAL system conforms to the requirements of BS EN 12608:2003 unplasticised polyvinyl chloride (PVC-U) profiles for the fabrication of windows and doors – classification, requirements and test methods, certificate number KM 13468 and is extruded under BS EN ISO 90001 quality management system requirements certificate number FM10215. Windows and doors have been manufactured and tested to the latest fabrication, weathering and security requirements and passed.

## BS6375

All windows and doors are tested for weather performance, water ingress, air leakage and deflection including low threshold French doors and have passed.

## PAS24:2016

Enhanced security performance requirements for door sets and windows in the UK. The latest PAS24 standard covers the security and testing requirements for all fenestration products. aluplast IDEAL casement, tilt and turn windows and doors, including French doors have passed.

The stringent testing and successful outcome has resulted in the IDEAL system Kitemark licence number KM 590706 in respect of BS EN 12608/PAS24 window system supplier and KM 590707 in respect of BS EN 12608/PAS24 door system supplier.

## Energy Ratings

The IDEAL system comfortably passes an A+ energy rating and with high performance sealed units can achieve an A++ energy rating.

## Installation

aluplast recommends that all survey and installations are in accordance with BS 8213-4:2007 windows, doors and rooflights – Part 4; code of practice for the survey and installation of windows and external door sets.

## CE Marking

The aluplast IDEAL system, when fabricated using certified hardware, meets the requirements of BS EN 14351-1 windows and doors – product standard, performance characteristics – Part 1; windows and external pedestrian door sets without resistance to fire and / or smoke leakage characteristics, and with the appropriate FPC (Factory Production Control System) CE marking can be applied to the glazed fabricated product.

## Secured by Design compliant

IDEAL system is Secure by Design and Document Q compliant. Accreditation for both of these assessments is awarded to the fabricator upon submission and testing of a specific sample type. Further information available from aluplast offices in the UK.



# IDEAL series

Effective solution for any building detail

# IDEAL: the new generation PVC-U window and door systems from aluplast.

At the cutting edge of innovation, our window and door systems are engineered to be energy efficient, low maintenance and deliver the highest levels of security.

With slim sightlines and a choice of traditional wood-grain, colour or contemporary finishes, they also offer huge design flexibility.

All of our window and door suites have been designed to 'tick all the boxes' for state of the art windows and doors and features advanced design and system engineering.

Our windows and doors offer a fully integrated profile suites designed using the latest computer aided techniques combined with many years of experience.

The results give window and door systems which meet the requirements of today's challenging marketplace and which will continue to excel in the future.

IDEAL series is both attractive in appearance and effective in application. The choice of both fully square-line or sculptured profiles and matching glazing beads result in windows and doors with classic styling and tremendous appeal for consumers.

The IDEAL systems boast many advanced design features, enabling simple and economic fabrication and installation.

Advanced design affords a considerable degree of future proofing, allowing the system to take in its stride current trends and potential future requirements of UK and Ireland Building Regulations.

The fully integrated profile suites ensure that all IDEAL product types harmonise beautifully on any elevation regardless of the style of property.

Three outer frame height options (50mm, 60mm and 75mm) and two mullion sizes (70mm and 80mm) provide for frame designs that can accommodate most wind load requirements and reveal details.

A comprehensive range of cills, couplings, frame extensions, bay connectors and ancillary profiles complements the IDEAL system suites to provide effective solutions for almost any building detail.



# Combining design and aesthetics with precision German engineering

## Dedicated for the UK

Highly adaptable, low maintenance, technically advanced and energy efficient - the IDEAL 70 and IDEAL 4000 window and door systems have been developed as dedicated 70mm systems for the UK.

IDEAL system suites boast five chambers (front to back) at the core of their design philosophy.

Having two chambers either side of the reinforcement chamber greatly reduces thermal bridging and provides a superb thermal insulation performance.

Acoustic insulation or noise reduction is also much improved so windows manufactured from IDEAL system series provide the householder with a greater level of all round comfort and well being.

The five chamber construction and resulting thermal performance means that IDEAL system is well prepared for any changes to specifications or building regulations calling for enhanced thermal efficiency.

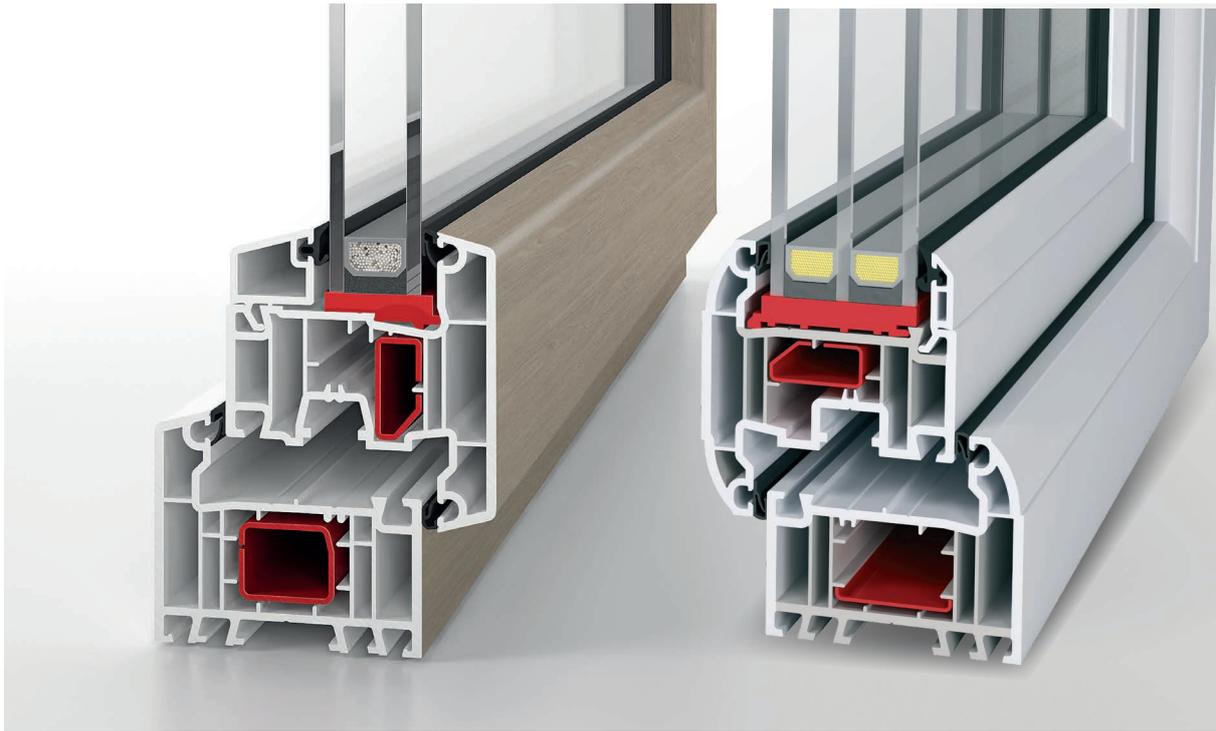
The use of a main profile depth of 70mm allows the easiest installation into most building details; enabling installers to fix back to the internal plaster line and still cover any remaining paint lines on the external substrate.

A profile depth of 70mm also allows for greater flexibility with regard to glazing thickness. IDEAL permits glazing of 28mm or 24mm double and 36mm or 40mm triple glazed high performance units with the same consummate ease.

The profile design incorporates lugs to locate the reinforcement profiles. Orientation options are provided for steel reinforcements that allow optimum selection for economic production and facilitate insertion of reinforcement profiles prior to welding of the PVC-U sections.

The base design of IDEAL systems outer frame sections provides compatibility with a wide range of aluplast ancillary profiles including cill sections, frame extensions, bay corner solutions and many other sections

## IDEAL SERIES



### Matching bead and profile design

The bead shape mirrors the shape of the upstand to the glazing rebate to provide a beautiful balanced appearance with identical sightlines. The finished window looks identical viewed from inside or outside; simply stunning! While 28mm high performance double glazed sealed units have become the performance standard in the domestic sector, IDEAL 4000 recognises the need for the option of 24mm glazing depth to meet a wider range of window and door specifications for other market sectors. Glazing beads for both 28mm and 24mm sealed units both offer a squareline appearance that perfectly complements the profile detail. Triple glazing can easily be produced utilizing our 36 and 40 mm glazing beads.

### Traditional and contemporary profiles

IDEAL's cleverly designed shapes make for simply stunning windows and doors. Beautiful both inside and out with a design focused on symmetry, the IDEAL windows and doors are perfect for replacing the replacements; an important development for the future of the industry. IDEAL windows and doors are eminently desirable for the end user. IDEAL is as easy to fabricate as it is stunning to look at. The positive stops at either extreme of the SquareLine or sculptured shape give defined datum points for modern window fabrication machinery and also make fabrication easier in more basic fabrication

environments. IDEAL profile series combines stunning good looks with ease of fabrication.

### Single leg glazing bead

IDEAL profile systems employ a secure single leg 'knock-in' or J-bead design. The single leg bead makes for faster, easier installation and provides the cleanest glazing platform. Installers love the way the single leg bead locates and the single leg format affords both stability and security while also easily accommodating normal glazing tolerances. aluplast' secure bead system passes Secure by Design and PAS24 with ease. Choose from either black or papyrus grey gasket.

### Co-extruded gaskets

IDEAL's co-extruded gaskets eliminate the need for the time consuming application of weather seals and gaskets to frames and sashes following the welding process as part of fabrication. The time saved will provide an increase in fabrication efficiency. Using IDEAL with its co-extruded gaskets will also enable the fabricator to reduce stockholding. IDEAL gaskets provide outstanding weather performance and complement the profiles' elegant sightlines. Co-extruded gaskets eliminate "the shrinking back" effect typical of old gasket systems and therefore prevent any gaps in corners. IDEAL windows and doors are also easier to fit and come in two options of ether black or papyrus grey gasket.



## Security first. Don't become a statistic.



20 per cent of all burglaries in the UK are committed through an unlocked door or open window without the use of force, with the forcing of insecure doors and windows accounting for the rest.

Windows and doors play a critical part in the security of your home. The performance of your doors and windows will be defined by locking mechanisms and hardware but also your choice of window and door system.

### Designing out crime

Our German-engineered energy efficient window and door system has been designed to help keep burglars out. It features local thickening of profile walls and where appropriate, steel reinforcement to increase resistance to attack. This also provides an improved fix.

### Ahead of the regulatory curve

Developed to work with the latest multi-point locking mechanisms from the UK's leading hardware providers, windows and doors are manufactured to meet all current standards.

Our systems can also be manufactured to achieve the official police Secured by Design (SBD) accreditation and new build regulations under Part Q for a PAS24:2016 specification.

## IDEAL SERIES



We bring German engineering to the UK and Irish market window and door sector. The Ideal offers incredible flexibility built around a slim sightlined, five chamber energy efficient system.



### Equal V notching

Internally glazed casement windows have steadily grown in popularity and today enjoy market dominance in most sectors. To achieve an internal glazing detail in both opening and fixed light sections of the window requires 'reverse butt' welding of the outer frame profiles. IDEAL 70 has been cleverly designed to utilize equal V-notching for transoms and mullions resulting in a balanced appearance with equal length feature grooves that complement the stunning appearance of the IDEAL 70 window.

IDEAL system provide for easy and cost effective fabrication of the following types:

- Outward opening Casement Windows with dedicated internally glazed sashes.
- Inward opening Tilt and Turn windows
- Horn Sash (IDEAL 70)
- Residential Doors – inward or outward opening
- French Window or Double Casement Windows inward or outward opening
- French or Double Doors – inward or outward opening
- Lift and Slide Patio Doors
- Smart-Slide Patio Doors
- Multislide Patio Doors
- Stable Doors
- Bi Fold Doors
- Flush Fit Casement Window (IDEAL 4000 & IDEAL 70)
- aluskin - an external clad on a profile (IDEAL 4000)



# IDEAL 70

Developed for the UK and Ireland

Boasting five chamber construction at the core of its design philosophy. Two chambers either side of the reinforcement chamber greatly reduces thermal bridging, provides a superb thermal insulation performance as well as improving acoustic insulation or noise reduction. All this results and the thermal performance means that IDEAL 70 is well prepared for any changes to specifications or building regulations calling for enhanced thermal efficiency.



TECHNICAL OVERVIEW

# IDEAL 70

70 mm profile depth

- Five chamber, backstop gasket system with two sealing levels
- $U_f$  thermal transfer coefficient value: 1.3 to 1.2 W/m<sup>2</sup>K
- A+ WER rating
- Fully sculptured suite of profiles provide an end product mirroring sightlines from fixed lights to opening sash
- Standard 24mm all the way through to an flush fitting 44mm beads suitable for the best performing triple glazed sealed units
- Premium surface finish
- Extensive range of woodgrains, colours and foils including flat colour options
- A 23mm rebate with an 8mm cover gives an optimum weathering performance
- Our eco-tech environmentally sustainable profile comes as standard with Ideal 70 and at no extra cost
- Can be manufactured to PAS24:2016 and Secure by Design specification
- Part M compliant low threshold options on doors





# IDEAL 4000

Casement windows

The Ideal 4000 Square-Line window system profiles and matching glazing beads result in windows and doors with with Urban chic and contemporary styling and tremendous appeal for modern domestic and commercial applications alike. With all the latest performance criteria and the added application option of aluminium aluskin external cladding makes this new addition to the aluplast family a classic.



TECHNICAL OVERVIEW

# IDEAL 4000 casement

70 mm profile depth

- A 70mm five chamber thermally efficient profile system
- A+ and A++ WER Rating
- U, value of 1.2 W/m<sup>2</sup>K to 1.3 W/m<sup>2</sup>K
- Glazing options from 24mm through to 40mm
- A Secure by Design and Document Q compliant system
- Over 30+coloured foils to choose from
- Aluminium cladding "aluskin" option





# aluskin

for the premium design

The elegant appearance of aluminium is very en vogue these days. aluplast believes in the intelligent mix of plastic and aluminium. Covering U-PVC windows with exterior aluminium aluskin shells simply clip into place to enhance the Pvcu profile. The aluminium classic exterior combined with the thermal benefits of Pvcu to make this ideal 4000 aluskin window and door system a perfect choice.

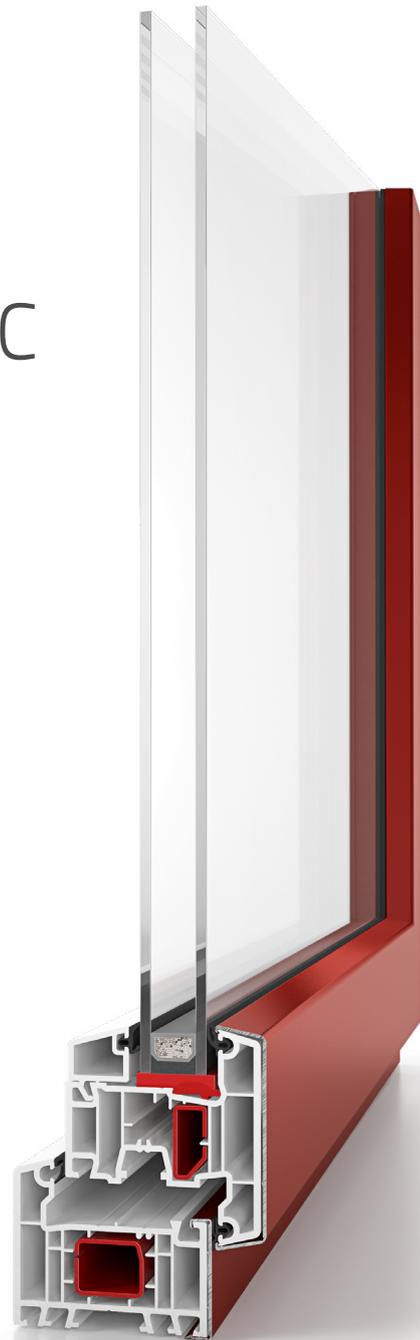
The result is a high-end product combining an appealing design, individuality and the highest level of security. Aluminium shells can be butt-jointed or mitre-jointed in the frame corners.

# IDEAL 4000 aluskin: aluminium meets uPVC

aluplast now introduce for the first time in the UK and Ireland the option of an aluminium external fascia branded "aluskin". "aluskin" is a proven technology across Europe and is an option on three other of aluplast' European profile ranges.

A simple "click & fix" external cladding for your Ideal 4000 Pvcu windows and doors is a great alternative to aluminium windows with the added benefit of outstanding WER Ratings.

It gives you and your customers the opportunity to enjoy leading edge technology at an affordable price point.



A Contemporary Aluminium Exterior with a Warm Pvcu Interior



A Document Q Approved System for New Build



A+ WER BFRC Performance Rating for Specification



The aluplast Flush Sash fits seamlessly into our standard suite of outer frames. It sits within the frame recreating a period design that sits equally comfortable in a modern home environment. You can either weld or mechanical joint the Flush Sash depending on how close you wish to replicate a tradition Flush Sash window. This energy efficient windows design achieves a BFRC "A" Rating whilst not compromising on its sleek sightlines.



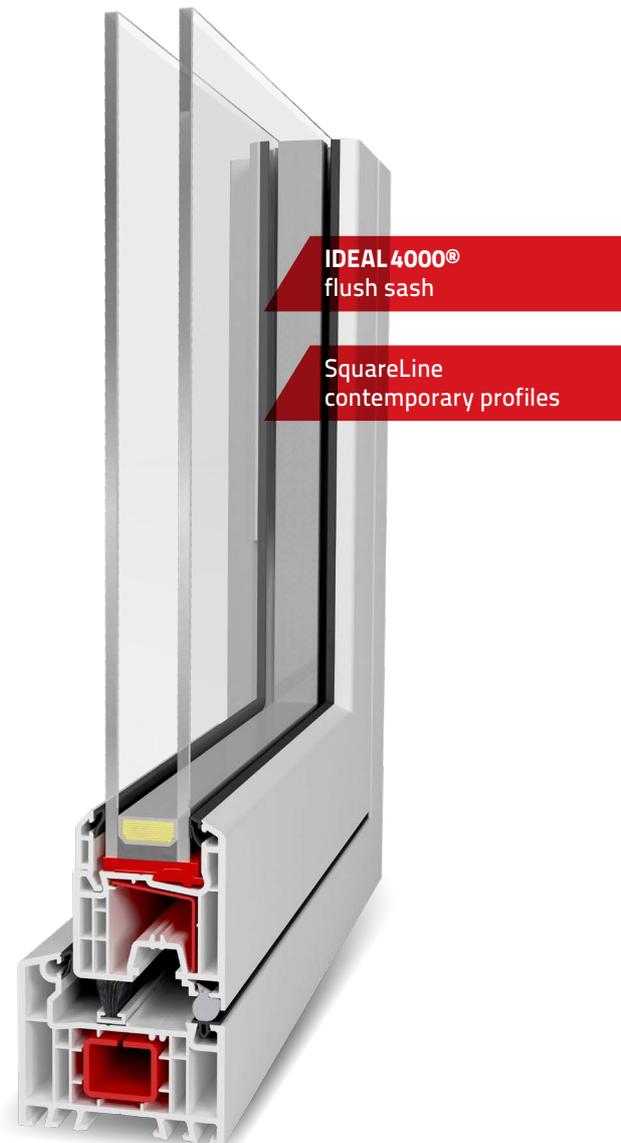


TECHNICAL OVERVIEW

# Flush sash casement

70 mm profile depth

- One of the biggest innovations in fenestration design
- The flush sash sits behind the upstand of the outer-frame upstand
- BFRC A Rating
- Glazed with 28mm DGSU
- A triple combination gasket and brush weather seal
- An option to mechanically joint a deeper bottom rail for a tradition period design
- Available in over 30 coloured foil finishes
- The symmetry between sash and outer frame provide for seamless sightlines





# Smart-Slide Patio Door

Designed for smooth and easy opening

Large glass surfaces are very much on trend... The generously dimensioned sliding doors, which open up to bring the garden into the living space. A Smart-Slide patio can be manufactured in very large sizes.



TECHNICAL OVERVIEW

# Smart-slide

70 mm profile depth

- Tested to PAS 24 – 2016 Security
- A 2 Panel Patio width of up to 4.5 meters
- Glazing 24mm to 40mm
- Soft close sliding door
- Next generation hardware from Roto
- Part open secure opening secure lock down
- A 4 panel option patio allows centre sliding doors to be internal or external



Smart-Slide is born from an ecologically sound production process coupled with a sustainably designed workplace. The result is environment-friendly product, efficient in design, and produced and manufactured with a minimal carbon footprint.

# Improved convenience through ease of operation

Your customers will love the locking mechanism: the self-closing sash slides into the frame with a soft motion, making the smart-slide door so simple to use that it is virtually impossible to operate it incorrectly – and that is just as invaluable for day-to-day use as the low exertion required to open and close the sash.





## SPACE SAVING

The use of smart-slide sliding doors is a step towards the optimal use of space inside rooms because the opening of the door does not require opening the sashes which would protrude into the living space. The smart-slide door can be made in two schemes:

- A: 2 sections with one movable sash
- C: 4 sections with two middle moving sashes

## STABILITY AND POSSIBILITY TO MAKE LARGE STRUCTURES

The locking along the whole perimeter of the sash ensures secure closing and at the same time the sash is light and moves easily with use of minimum force. This is a very important advantage especially in comparison to pull and slide structures, which, with numerous opening/closing cycles, can be problematic to operate. Additionally, thanks to the profiles being constructed using Multifalz technology, it is possible to optionally use the technology of gluing the glass unit in the glazing rebate, which provides greater firmness to the entire structure.

## WEATHERTIGHT – SECURE CONSTRUCTION

Smart-slide sliding door provide a new solution in line sliding patio type doors. This is a great solution both for single-family dwellings as well as public facilities, where ease of use and reliability are expected from patio doors. A well-thought-out combination of technical solutions means that the smart-slide achieves very good results in the areas of air permeability, wind load resistance and water resistance tests.

Smart-slide tested performance:

- Deflection test to High Wind Zone 970pa & with reinforcement 1515Pa
- Air infiltration test 150 Pascal
- Water penetration 455 Pascal & with reinforcement 600 Pascal

This is all thanks to the ideally matched seals of the sash, which are pressed transversely to the frame over the entire perimeter by turning the handle. The locking points meeting the area of the post help ensure tight construction.



# Lift & Slide Patio Door

Effortless operation, uninterrupted sightlines

Capable of spanning openings of up to 6.5m X 2.8m with just two sashes, the aluplast Lift-and-Slide door delivers impressive design flexibility and uninterrupted sightlines. With light touch and effortless opening even at maximum sizes, it connects indoor and outdoor spaces year-round. With U-values as low as 0.65 W/m<sup>2</sup>K, the aluplast Lift-and-Slide offers exceptional thermal performance, effortless operation and uninterrupted sightlines.



## TECHNICAL OVERVIEW

# Lift & Slide patio door

85 mm profile depth

- Light touch easy-operate lift-and-slide opening and closing mechanism
- Modular 85mm system
- Thermally broken aluminium threshold
- Accommodates glazing units of up to 52mm
- U-values as low as  $0.65 \text{ W/m}^2\text{K}$  - meeting Passive Haus standard equivalent
- Maximum width/height up to 6.5m X 2.8m
- Maximum sash weight of up to 300kg
- Ecotech technology



The Lift-and-Slide door delivers exceptional energy performance as standard. Ultra-energy efficient specifications, combined with glazing units of up to 51mm, deliver even higher levels of performance and U-values as low as  $0.65 \text{ W/m}^2\text{K}$ .



BASIC VARIANT



STANDARD VARIANT



PREMIUM VARIANT

The modular system is a breakthrough in this segment: One system allows for the fabrication of three different products with different thermal insulation properties. From basic requirements to passive-house suitable solutions.

Regardless of the product you finally choose, it will always match the design of other aluplast systems - for a wonderful and harmonious appearance of your home.



### Proven easy-lift technology

The aluplast Lift-and-Slide exploits proven technology. Sashes are mounted on an easy-lift mechanism that elevates when opened and lowers on to the track when closed. So, a fully closed door rests over lower weather seals improving the door's weather tightness, thermal and acoustic insulation. The moving sash can also be lowered on to any place on the track making for occasional ventilation.

### Connected spaces without the uprights

Capable of spanning openings of up to 6.5m X 2.8m with just two sashes, the aluplast Lift-and-Slide door delivers impressive design flexibility and uninterrupted sightlines. With light touch and effortless opening even at maximum sizes, it connects indoor and outdoor spaces year-round. This makes the aluplast Lift-and-Slide system ideal for enclosing large spaces and guaranteeing light transfer - even on the gloomiest of days.



## Barrier-free? Sure!

The goal: absolute freedom of movement for all those who are restricted in their mobility. The 85 mm lift-and-slide door is therefore available in a barrier-free version. The door frame, which looks like a continuous floor, now includes a flat threshold for a comfortable, obstacle-free transition from inside to outside. It's easy to open and close - even with very large elements.

The lift-and-slide door with barrier-free threshold fulfills the requirements required by DIN 18040 "Barrier-Free Construction".



### Fixframe - Unique views

An extra narrow profile in the fixed glass pane lets even more light into your living space - for a higher standard of living and added warmth from the sun!

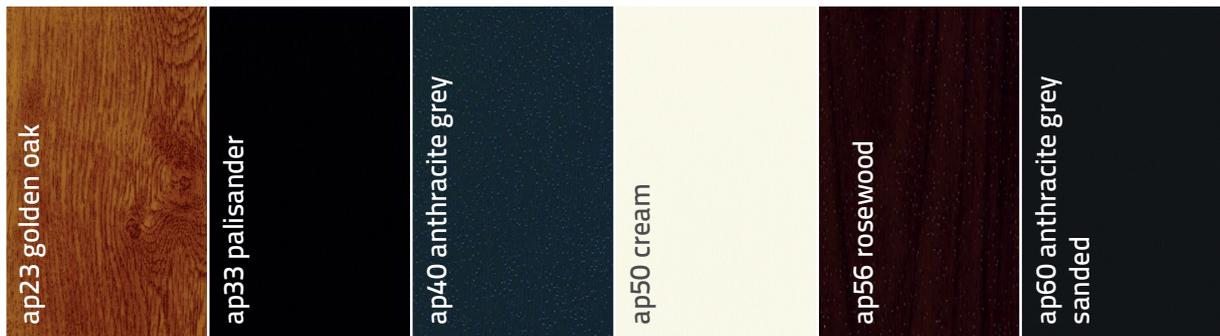
# Wide range of coloured foil finishes

All aluplast coloured foil finishes feature innovative technology which improves performance characteristics providing a much longer life cycle of the surface finish. Our lamination foils utilise special patent-protected pigments which considerably reduce the surface temperature of coloured foil finished profiles.

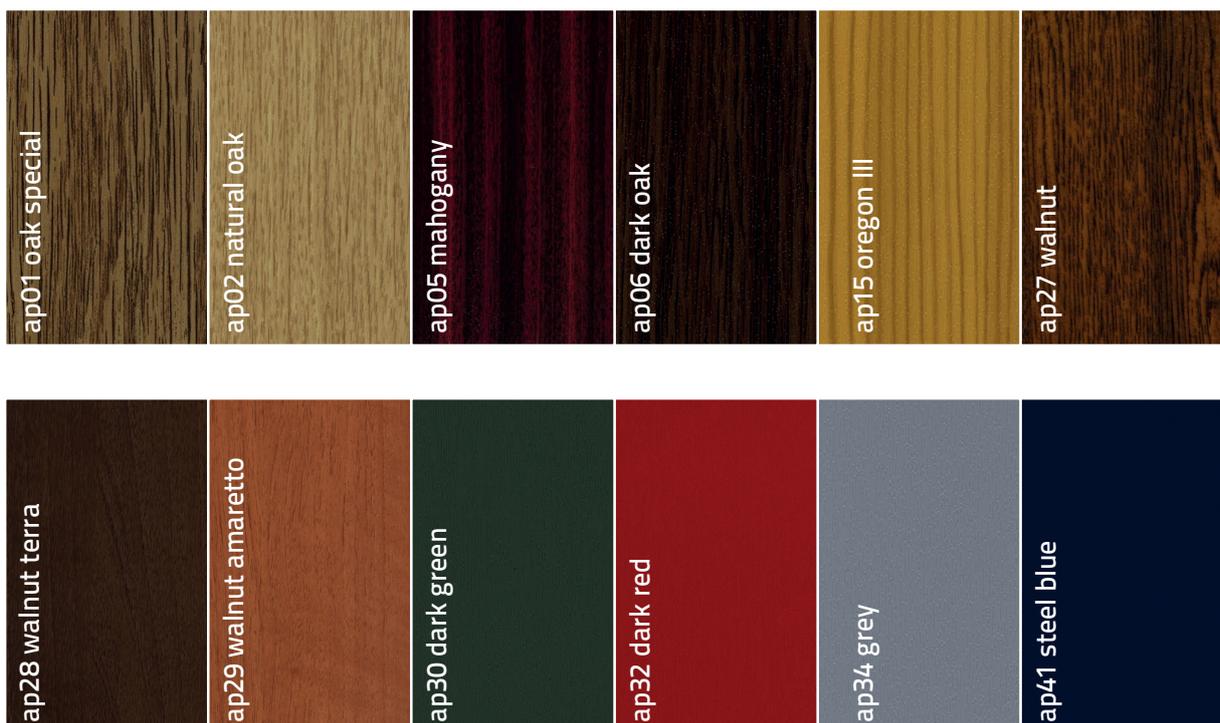
The IDEAL systems are available in a beautiful white lustre finish ( RAL 9016 ) and also in the following elegant coloured foiled finishes as a standard stock offer:

- Rosewood foil on one side on white base
- Rosewood foil on both sides on brown base
- Golden Oak foil on one side on white base
- Anthracite Grey Sanded on both sides on a dark grey base
- Palisander (black) foil on one side on white base
- Cream foil on one side on white base
- Anthracite on one side on white base

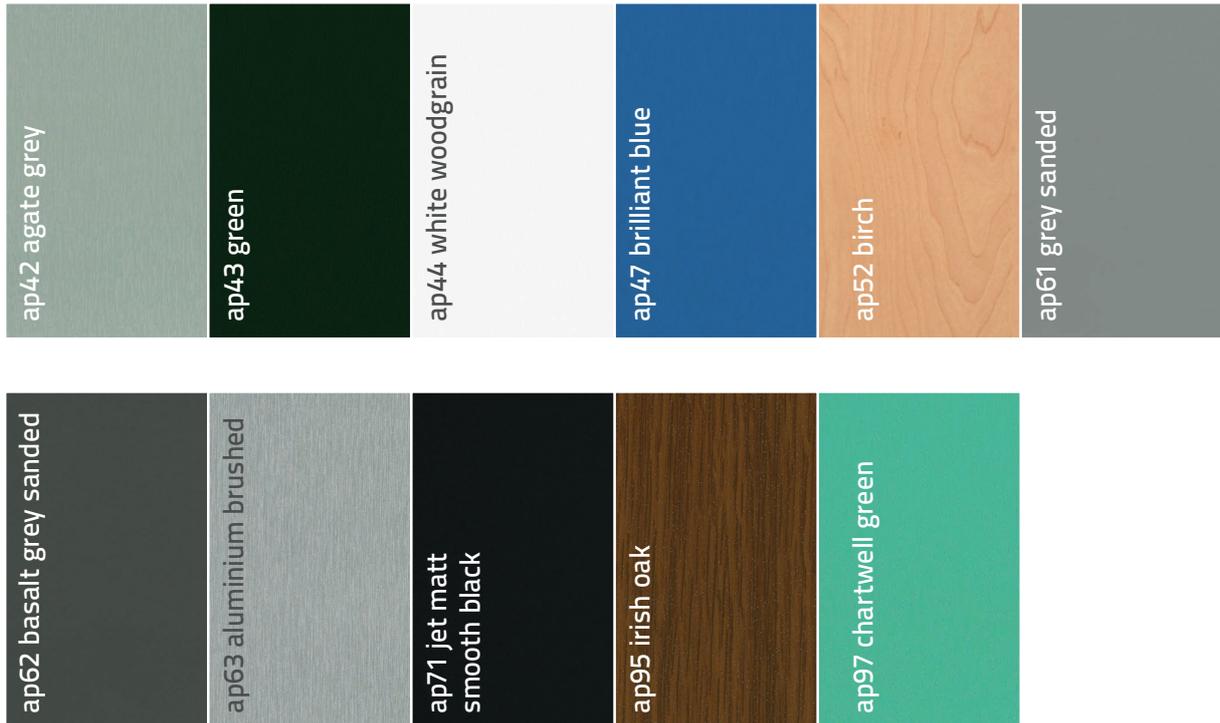
## Standard foil colours



## Custom foil colours



## CHOICE OF COLOURS



## Woodec colours



In the recent years, the way of thinking about architecture has changed significantly. This change is expressed primarily in the search, in both the design of the building and in the products used in it, for solutions allowing to give these projects a unique and individual style. The preferences regarding colors have also changed significantly, where currently among most predominant colors are anthracite, basalt and various shades of gray.

Now all grey and black foils are available to order on a Dark Grey Pvcu substrate.