

Ponzio Polini
1994-2023

since 2024



PROCURAL

aluminium systems



ALUMINIUM SYSTEMS



PROCURAL

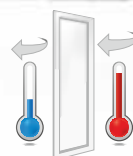
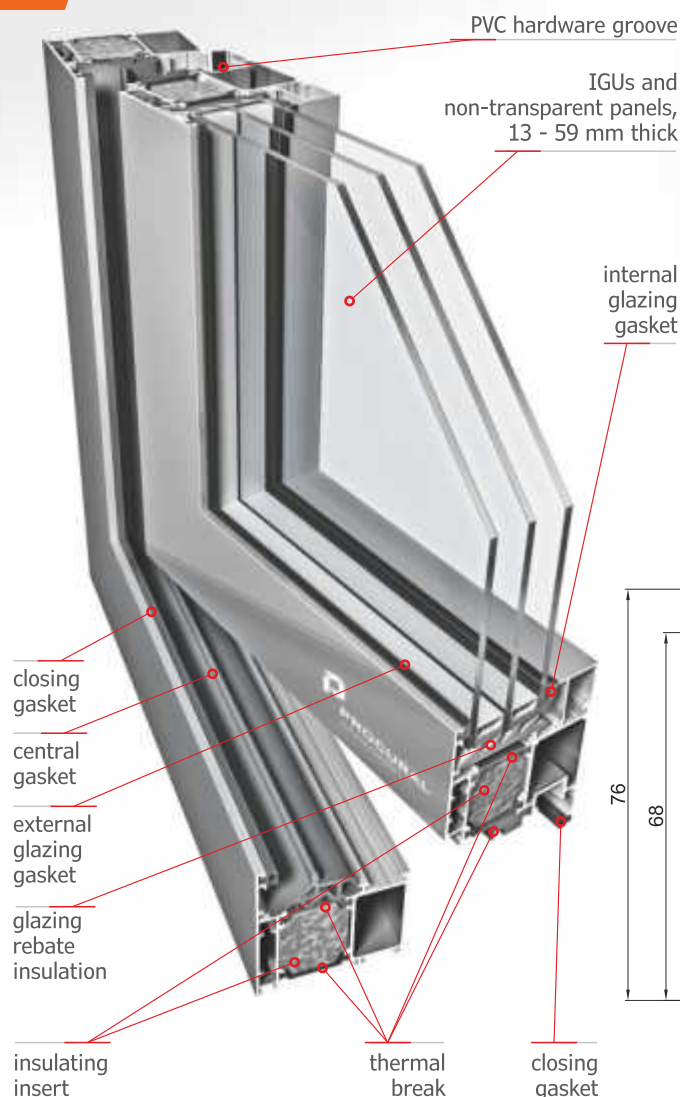
aluminium systems

PROCURAL (formerly Ponzio Polska) is a manufacturer of modern aluminium profile systems for the construction industry used in the manufacturing of windows, doors, curtain walls, winter gardens, sunscreens, as well as in specialised solutions of various types, including fire-resistant, burglar-proof and bullet-proof structures. Innovative system solutions applied to multi-purpose buildings meet the stringent requirements of energy efficiency, comfort and security.

PROCURAL products form the landscape of modern architecture in Europe and in many countries around the world. We cooperate with investors, architects and manufacturers of aluminium joinery, and we provide assistance to individual investors and general contractors. Highly qualified staff are available at every stage of cooperation. Starting from the design - providing technical support, through sales support during the implementation of the project, to the timely delivery of the ordered goods provided by our modern logistics centre.

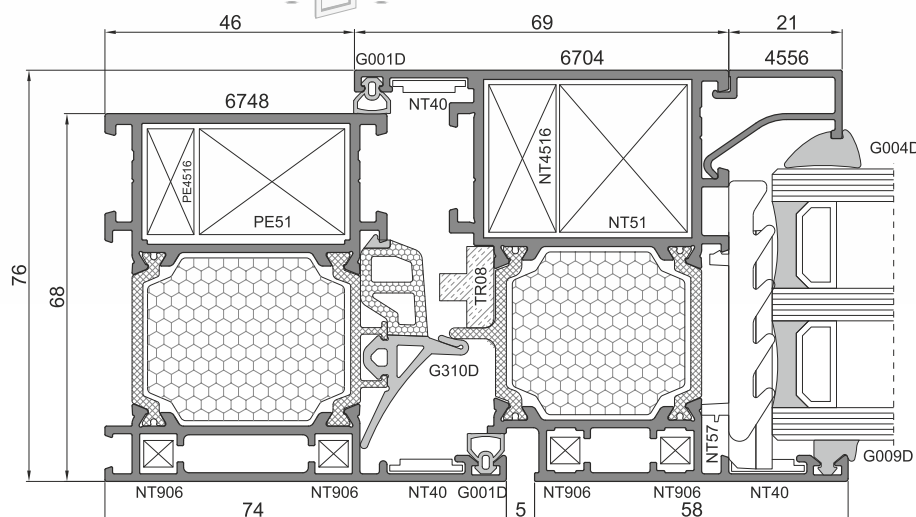
Thanks to several decades of experience, the company has developed a strong position on the market and is among the largest suppliers of aluminium systems in the world.





$$U_w = 0.84 \text{ W}/(\text{m}^2\text{K})$$

*reference construction dimensions: L 1480 x H 2180 mm
 $U_g = 0.5 \text{ W}/(\text{m}^2\text{K})$, triple glazing



An insulated, three-cavity profile system featuring very good thermal performance

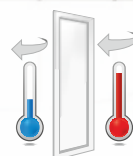
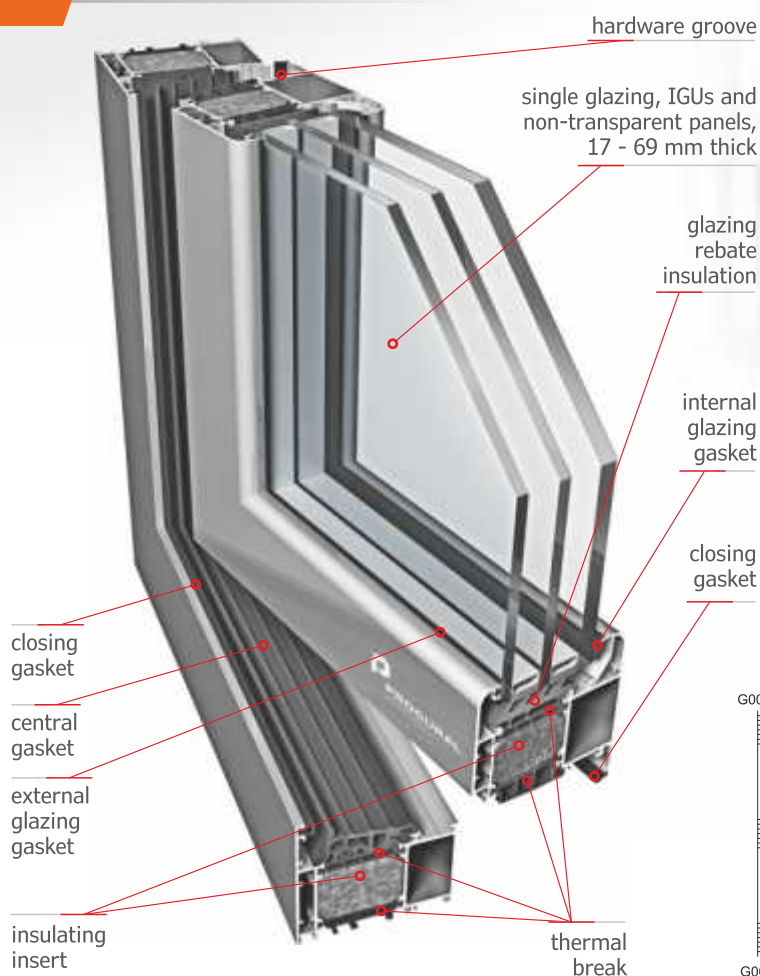
- Euro hardware groove and hardware groove used in PVC and wood windows
- high thermal performance due to the optimised 32 mm thermal break and central gaskets (mono- or bi-component)
- easy installation of a wide range of hardware
- the three-cavity design of profiles ensures good mechanical durability, thus enabling large constructions
- window sashes flush with the frame on the outside
- profile bending available
- wide variety of corner joint solutions
- wide variety of possible constructions: turn-tilt, outward opening, concealed sash, pivoting etc.
- different thermal insulation variants with different insulation inserts: PE68+, PE68HI

TECHNICAL PARAMETERS

Filling thickness		frame: 13 - 51 mm sash: 13 - 59 mm
Frame depth		68 mm
Sash depth		76 mm
Maximum sash dimensions		L 1550 x H 2200 mm L 1200 x H 2400 mm, L 1100 x H 2700 mm
Maximum sash weight		200 kg
Air permeability		class 4
Watertightness		class E1650
Thermal insulation		PE68: U_f from 1.8 W/(m ² K), U_w from 0.93 W/(m ² K) PE68HI: U_f from 1.4 W/(m ² K), U_w from 0.84 W/(m ² K)
Resistance to wind load		class C5
Resistance to burglary		class RC2, RC3 in acc. with EN 1627

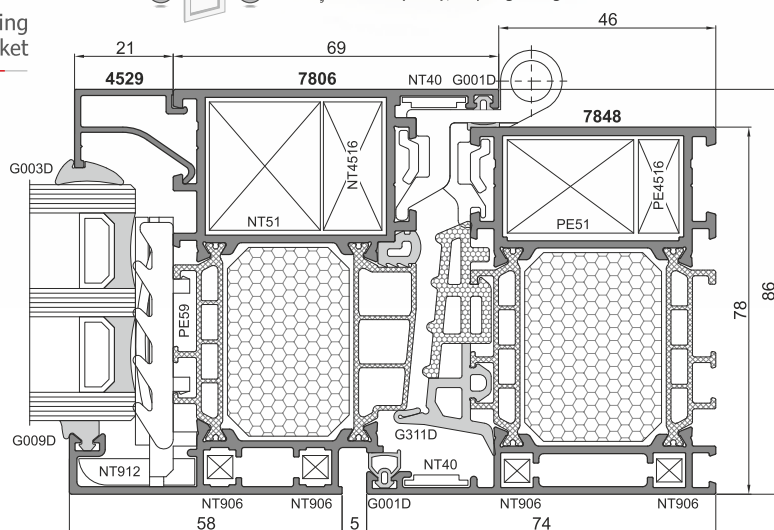
Certification

type testing in acc. with EN 14351-1 + A2



$$U_w = 0.74 \text{ W/(m}^2\text{K)}$$

*reference construction dimensions: L 1480 x H 2180 mm
 $U_g = 0.5 \text{ W/(m}^2\text{K)}$, triple glazing



An insulated, three-cavity profile system designed for the construction of windows with very high thermal insulation requirements

- Euro hardware groove and hardware groove used in PVC and wood windows
- high thermal performance due to the multi-cavity 42 mm thermal break and bi-component central gasket
- large-dimension constructions possible
- wide range of available hardware
- window sashes flush with the frame on the outside
- different thermal insulation variants with different insulation inserts: PE78N, PE78N+, PE78NHI+
- wide variety of possible constructions: turn-tilt, outward opening, concealed sash etc.

TECHNICAL PARAMETERS

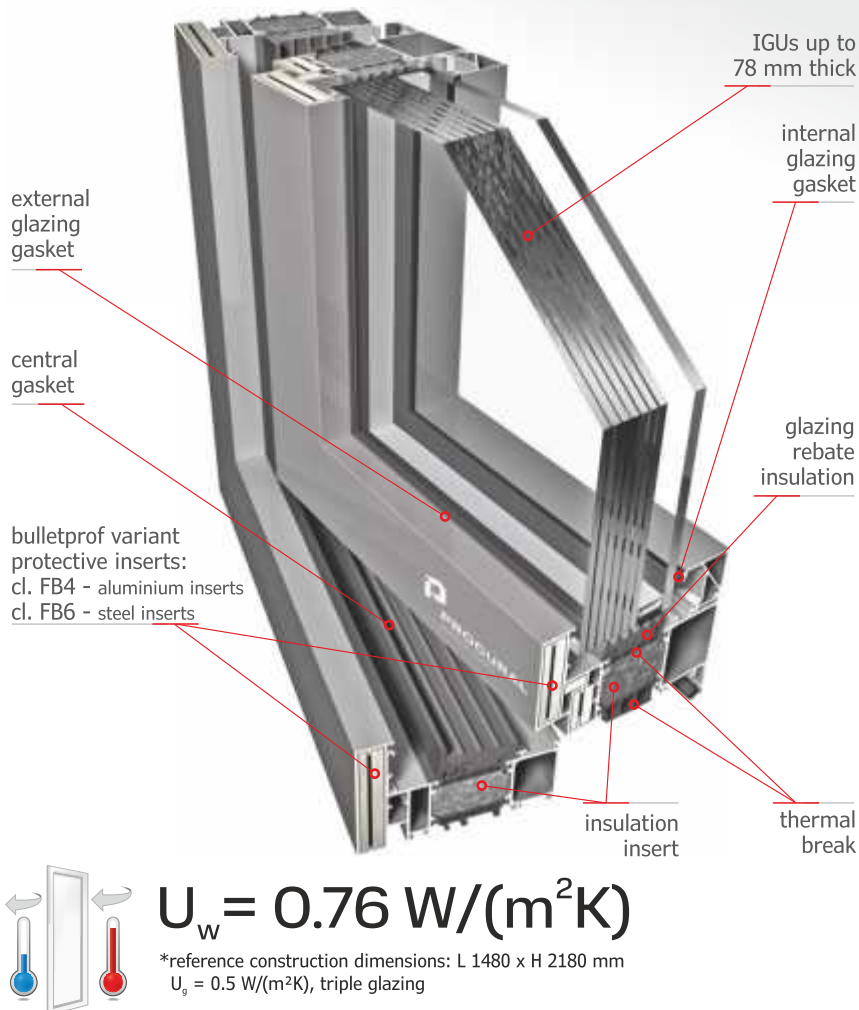
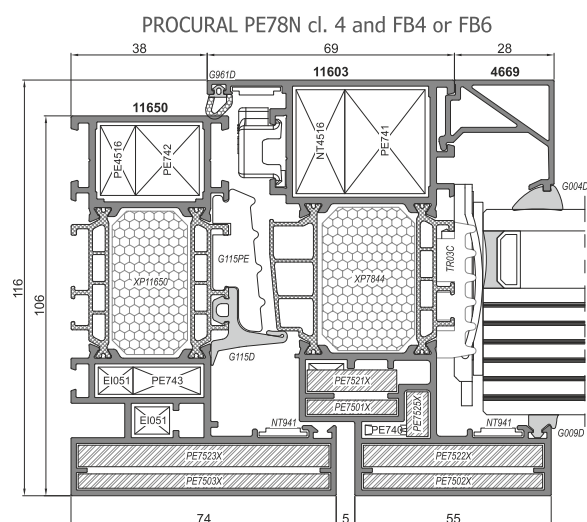
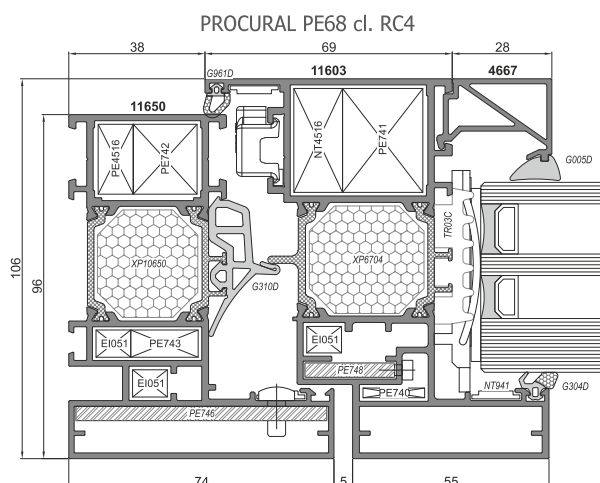
Filling thickness	frame: 17-61 mm sash: 17-69 mm
Frame depth	78 mm
Sash depth	86 mm
Maximum sash dimensions	L 1700 x H 2200 mm L 1300 x H 3000 mm
Maximum sash weight	200 kg
Air permeability	class 4
Watertightness	class E1650
Thermal insulation	PE78N: U_f from 1,7 W/(m ² K), U_w from 0,88 W/(m ² K) PE78NHI: U_f from 0,9 W/(m ² K), U_w from 0,74 W/(m ² K)
Resistance to wind load	class C5
Resistance to burglary	class RC2, RC3 in acc. with EN 1627

Certification

type testing in acc. with EN 14351-1 + A2

FB4 and FB6 BULLETPROOF WINDOWS

RC4 BURGLARY RESISTANT WINDOWS



$$U_w = 0.76 \text{ W/(m}^2\text{K)}$$

*reference construction dimensions: L 1480 x H 2180 mm
 $U_g = 0.5 \text{ W/(m}^2\text{K)}$, triple glazing

TECHNICAL PARAMETERS

Filling thickness and type	up to 78 mm
Frame depth	PE68 - 96 mm, PE78N - 106 mm
Sash depth	PE68 - 106 mm, PE78N - 116 mm
Thermal break width	PE68 - 32 mm PE78N - 42 mm
Maximum sash dimensions	L 1400 x H 2200 mm
Maximum sash weight	170 kg
Air permeability	class 4
Watertightness	class E1500
Thermal insulation	U_f from 0.96 W/(m ² K) U_w from 0.76 W/(m ² K)
Resistance to wind load	class C5
Resistance to burglary	klasa RC4 wg PN-EN 1627
Bulletproof	class FB4, FB6 in acc. with EN 1522:2000

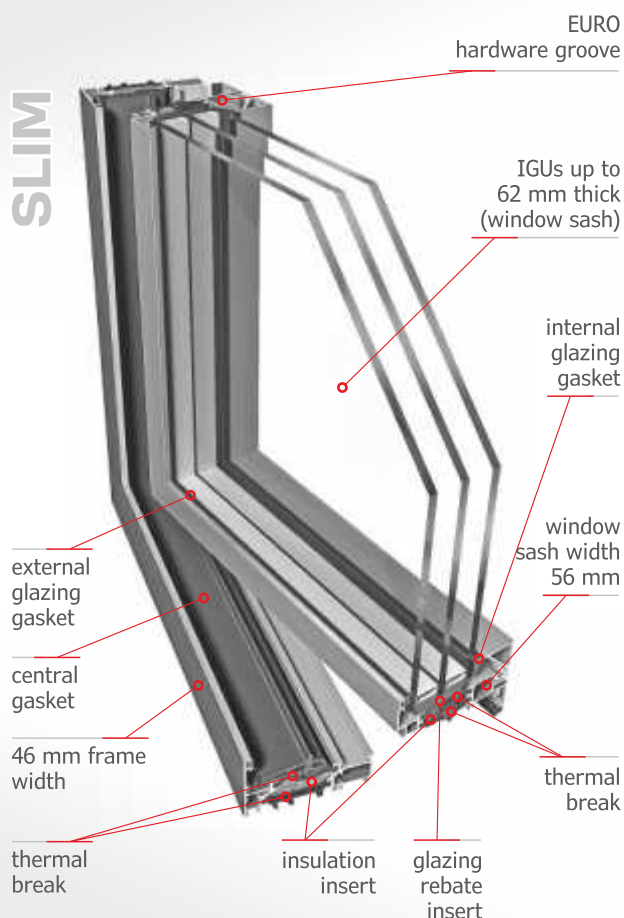
Certification

type testing in acc. with EN 14351-1 + A2

**A system designed for the construction of RC4
antiburglary glazed partitions and windows
FB4 and FB6 bulletproof windows (PE78N)**

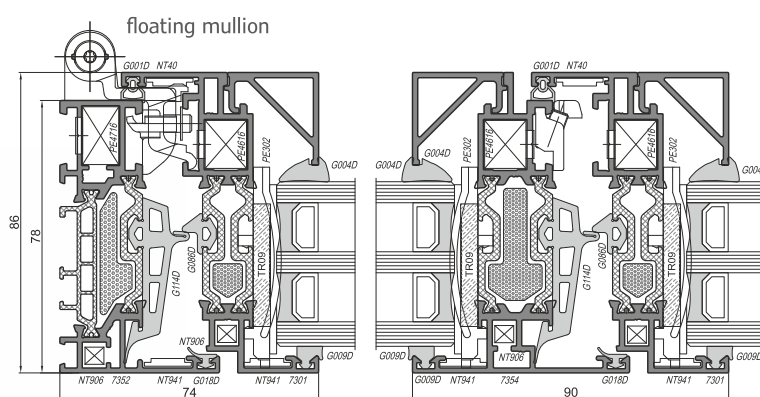
- several features preventing and hindering break-ins, extending the time to breach:
 - reinforced profile construction
 - reinforced glazing beads
 - handle with key
 - handle and hardware drives secured against drilling
- 10 mm rebate allows the use of reinforced hardware
- antiburglary bars and roller shutters not needed
- glazing range up to 78 mm allows the use of IGUs containing secure glass, cl. P6B or better
- easier and quicker assembly due to IGUs not being glued to profiles
- high thermal insulation
- outward appearance identical as non-burglary-rated windows, improving overall building aesthetics
- PE78N FB4 bulletproof windows secured in the external cavity from the attack side with aluminium flat bars (simpler, lighter solution)
- PE78N FB6 bulletproof windows secured with steel flat bars

SLIM



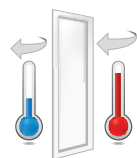
An insulated profile system with the Euro hardware groove

- the narrow PE78N SLIM and PE78N SLIM INDUSTRIAL profiles were designed with modern interiors with large glazings in mind
- 90 mm wide floating mullion perfectly complements the system
- PE78N SLIM window sashes flush with the frame on the outside
- PE78N SLIM INDUSTRIAL windows perfect for tall loft spaces due to industrial design of profiles
- different thermal insulation variants with different insulation inserts: PE78N, PE78N+, PE78NHI



TECHNICAL PARAMETERS

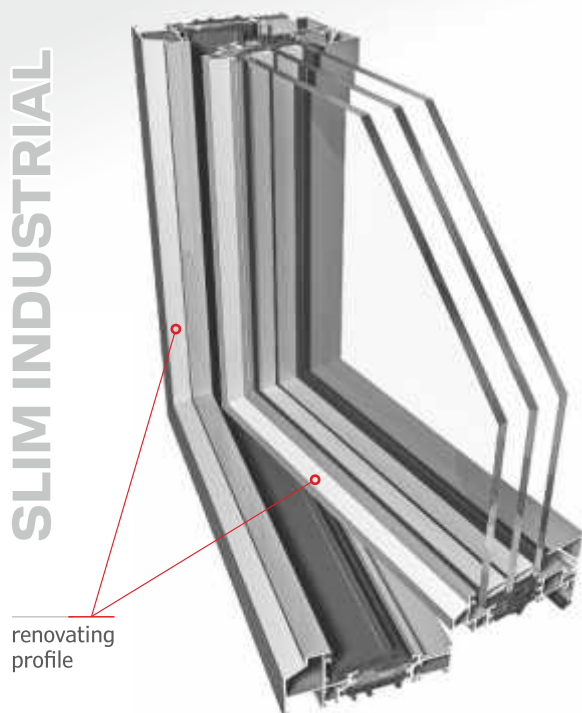
Filling thickness	frame: 13 - 61 mm, sash: 26 - 62 mm
Frame depth	slim: 78 mm, slim industrial: 100 mm
Sash depth	slim: 86 mm, slim industrial: 96 mm
Maximum sash dimensions	L 1000 x H 3000 mm L 1500 x H 1700 mm
Maximum sash weight	180 kg
Air permeability	class 4
Watertightness	class E1500
Thermal insulation	U_f from 1.9 W/(m ² K) U_w from 0.80 W/(m ² K)
Resistance to wind load	class C5/B5
Certification	type testing in acc. with EN 14351-1:2006+A2:2016-09



$$U_w = 0.80 \text{ W/(m}^2\text{K)}$$

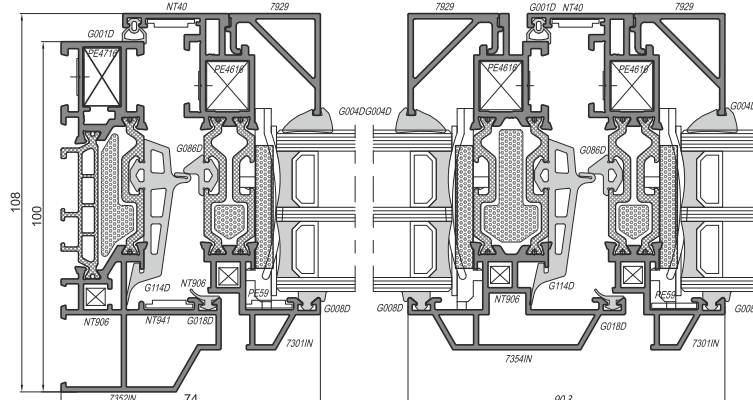
*reference construction dimensions: L 1480 x H 2180 mm
 $U_g = 0.5 \text{ W/(m}^2\text{K)}$, triple glazing

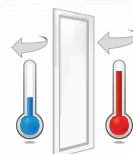
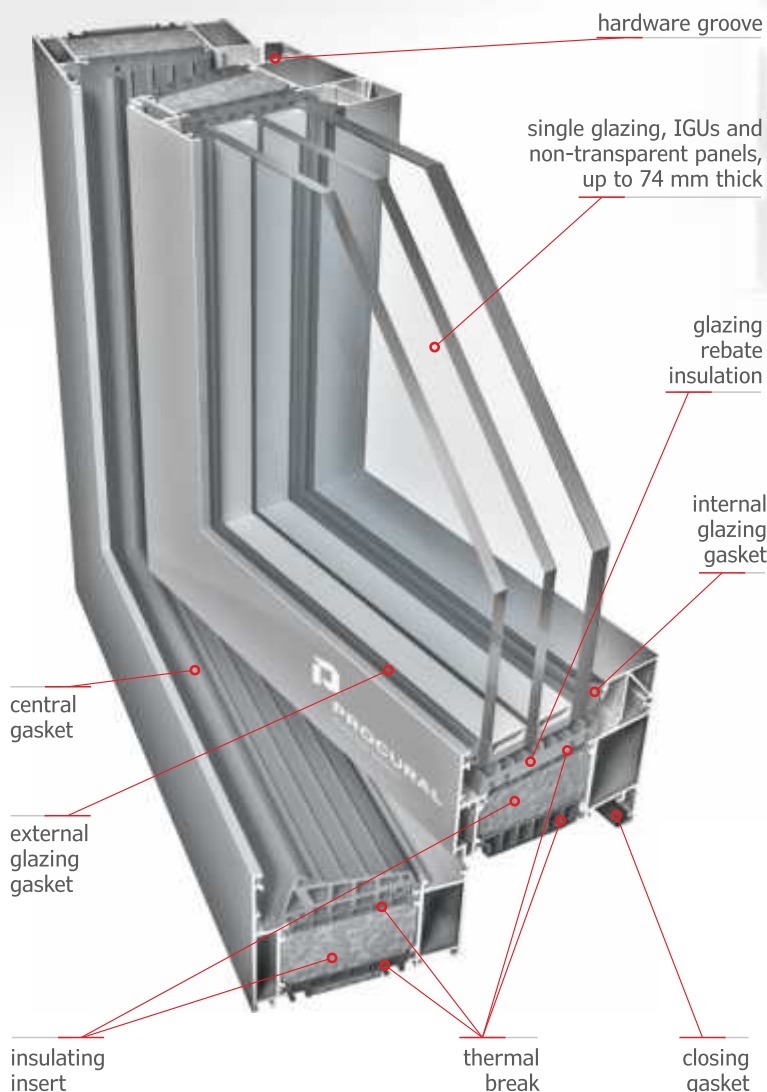
SLIM INDUSTRIAL



Frame and window sash

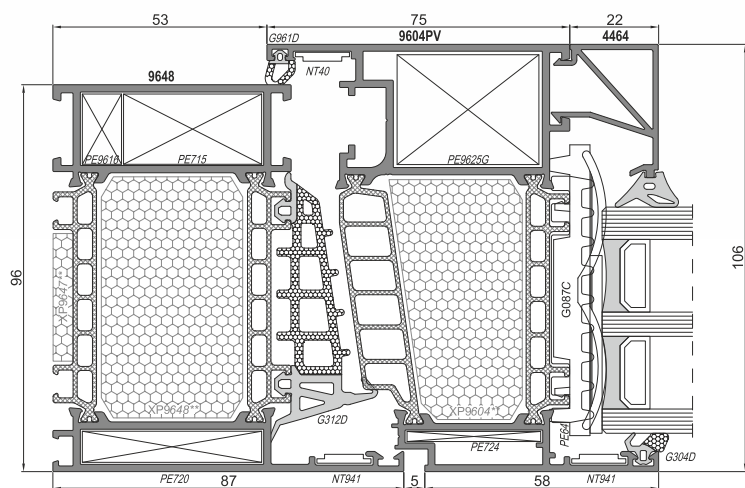
Window sash with floating mullion





$$U_w = 0.66 \text{ W/(m}^2\text{K)}$$

*reference construction dimensions: L 1480 x H 2180 mm
 $U_g = 0.5 \text{ W/(m}^2\text{K)}$, triple glazing



An insulated, three-cavity profile system meeting the most stringent thermal insulation requirements

- Euro hardware groove and hardware groove used in PVC and wood windows
- designed for constructions used in energy-efficient and passive buildings ($U_w < 0.8 \text{ W/(m}^2\text{K)}$)
- high thermal insulation due to the multi-cavity 62 mm thermal breaks and bi-component central gaskets
- large-dimension constructions possible
- window sashes flush with the frame on the outside
- wide variety of corner joint solutions
- 22 mm and 28 mm high glazing beads

TECHNICAL PARAMETERS

Filling thickness	frame: 39 - 62 mm sash: 39 - 74 mm
Frame depth	96 mm
Sash depth	106 mm
Maximum sash dimensions	L 1700 x H 2300 mm L 1400 x H 2800 mm
Maximum sash weight	200 kg
Air permeability	class 4
Watertightness	class E1950
Thermal insulation	U_f from $0.82 \text{ W/(m}^2\text{K)}$ U_w from $0.66 \text{ W/(m}^2\text{K)}$
Resistance to wind load	class C5
Resistance to burglary	class RC2, RC3 in acc. with EN 1627

Certification

type testing in acc. with EN 14351-1 + A2

ADDITIONAL INFORMATION

The extensive range of PROCURAL products offers a wide variety of interconnected solutions which have been designed to constitute a coherent and compatible system

Technical solutions

A wide range of solutions optimised with regard to quality, static durability, weather resistance, fire resistance and energy efficiency in prefabrication and installation and in everyday use due to good thermal performance.

Modern technologies and designs consistent with the latest architectural trends ensure durable, large-dimension constructions with large glazings and high comfort of use.

Efficient water drainage and ventilation solutions are guaranteed to function properly in even difficult weather conditions in different locations around the world.

Decades of experience in designing aluminium systems and our own R&D facilities allow short development times of bespoke solutions for the most demanding investors.

Aluminium profiles

EN AW-6060 in acc. with EN 573-3, T66 temper in acc. with EN 515 and fulfilling the requirements of EN 12020-1

Gaskets

EPDM synthetic rubber in acc. with EN 12365-1 and TPE in acc. with DIN 16941R3

Hardware and accessories

system elements and the best brands available on the market: ASSA ABLOY, AXA, BIRA, dormakaba, Dr. Hahn, ECO Schulte, esco, Fapim, FUHR, GEZE, G-U, ISEO, MASTER, NEMEF, Roto, SIEGENIA, Sobinco, STAC, WALA, WILKA, WINKHAUS, SAVIO, SECURISTYLE and many more

Fillings

single glazing, IGUs with any type of glass and non-transparent panels

Surface treatment

- polyester powder coating in acc. with Qualicoat available in all RAL colours; anodising and with wood-like appearance; anodizing in acc. with Qualanod in natural aluminium and coloured; wood-effect coating
- polyester powder coating fulfills high anti-corrosion requirements

Thermal insulation

Determined analytically in FEM calculations as well as through testing; individual frame heat transfer coefficients (U_f/U_a) for certain profile combinations as well as heat transfer coefficients for full constructions ($U_w/U_d/U_{cw}$) in acc. with EN ISO 10077-2 / EN ISO 12631

Certification

- type testing in acc. with EN 14351-1 and EN 14351-2 for window and door systems
- type testing in acc. with EN 13830 for curtain wall systems
- ITB National Technical Assessments

