

TITANE 65

HIGH -
RESISTANCE DOOR



Architects: VIB Architecture, Duffau & Associés
Photographer: S. Chalmeau

IMAGINE WHAT'S NEXT **TECHNAL**





TITANE 65

/ ITS PROMISE IS THE FUTURE

STAYING AHEAD MEANS REINVENTING

When innovation and design are united in perfect harmony, it marks the beginning of a new way to inspire and imagine.

Titane 65, a timeless, elegant and robust door offering enhanced resistance and durability. A door with a minimalist design capable of adapting to and serving any architectural project.

Made from a 65 mm module, the TITANE thermal break door is fitted with a high-resistance hinge system: stainless steel pivot fully integrated into the door module.

The TITANE door aesthetic is meticulously prepared: straight and refined lines, no visible lift-off hinges, hidden hinges, door spring flush mounted in the opener transom.

Security is enhanced by integrating vital functions such as the security bolt, the door spring, the locks and the electro-magnetic closures. All these components are concealed in the door to enhance its aesthetic character, but also to avoid any risk of common vandalism.

Endurance tested over more than 1 million cycles for the large version (3 m high and 1.4 m wide per leaf), the TITANE door is ideal for heavy use buildings such as administrative buildings, apartment entrances, but also for department stores, schools, offices, etc.

Titane 65, a versatile door able to respond to any project:

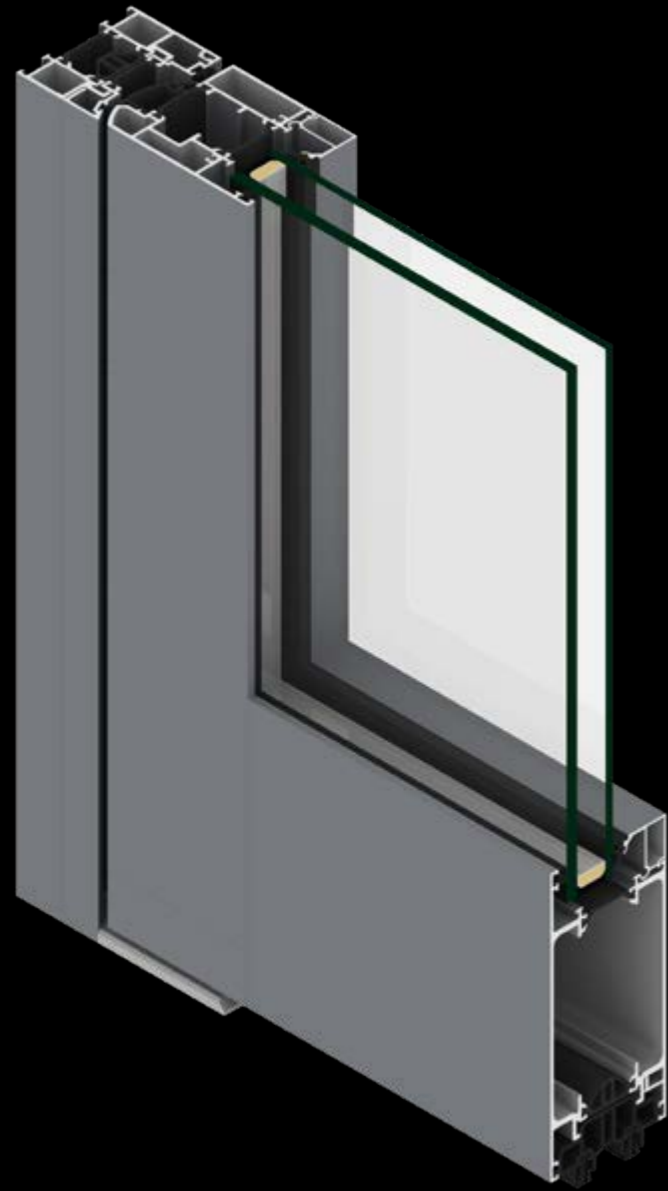
- Heavy use
- Large versions
- Ease of maintenance
- After-sales intervention without door removal
- Access control by electro-magnetic closure coupled to a lock
- Withstands common vandalism
- Break-in delay, level 2 and 3 resistance level (current) for greater security
- Frontage or façade integration
- Level 1 or 2 anti-finger trap version
- Assembly with or without a threshold for buildings frequented by persons with reduced mobility



Architect: Espagno Milani
Photographe : Franck Brouillet

TITANE 65

/ HIGH - RESISTANCE DOOR



1 LEAF - DOOR

KEY CHARACTERISTICS AND INNOVATIONS

DURABILITY AND RELIABILITY

- Endurance tested of more than 1 million cycles under extreme load: 250 kg
- More than 200,000 test cycles for the lock version

LARGE DIMENSIONS

- Up to 3 m high and 1.4 m wide for 1-leaf door

THERMAL PERFORMANCE

- $U_w = 1.4 \text{ W/m}^2\text{K}$
(double glazed $U_g = 1.0 \text{ W/m}^2\text{K}$),
 $H \times L = 2.18 \times 1.25 \text{ m}$
- $U_w = 0.95 \text{ W/m}^2\text{K}$, $TL_w = 0.54$, $Sw = 0.40$
(triple glazed $U_g = 0.5 \text{ W/m}^2\text{K}$) opening frame
with $H \times L = 3 \times 1.4 \text{ m}$
- Acoustic attenuation: up to 39 dB (RA,tr)

EASE OF MAINTENANCE

- Interchangeability of certain components without removing the door:
 - Door spring
 - Lock
 - Electro-magnetic lock
 - Threshold

DESIGN

- Integrated components for completely smooth and homogeneous feel
- Straight and even sections providing an elegant and robust appearance

SECURITY

- Integration of the following components:
 - Door spring in upper transom with access hatch that cannot be disassembled from outside
 - Hinge system inaccessible from outside
 - Access control system integrated in the opener and the fixed frame
- Level 1 (pivot side) and level 2 (pivot and lock side) anti-finger trap solution
- Break-in delay solution (on going)

IMPERMEABILITY

- Graded performance levels depending on the location and on exposure
 - Non-threshold version
 - Flat threshold version
 - Rebated threshold version
- All rebates take into account accessibility

TITANE 65

/ MORE THAN A DOOR, A PROMISE FOR THE FUTURE

ENDURANCE IS ITS STRENGTH

Titane 65 handles a very high open and close cycle, it is thus designed to withstand a continuous flow of movement of more than 1 million cycles, corresponding to 1370 cycles a day during 2 years.

These tests include:

- Rotation system durability
- Opener stiffness
- Innovative connection system for the opening frame (patent)
- Tests under extreme load: 250 kg
- Locks tested for more than 200,000 cycles

EASE OF MAINTENANCE

With Titane 65, the door does not need to be removed for maintenance since the wear parts can be replaced on site.

This door is formed by independent items that facilitate a targeted and localised intervention. This helps to keep your building secure, whilst performing maintenance within a limited time period.

Easily interchangeable components: door spring, lock, electro-magnetic lock, threshold, etc.



Pivot integrated in the door module.



Door spring flush mounted in the upper transom.



Architecture agency: PPA Architecture
Photographer: Takuji Shimmura

TITANE 65

/ CONSUMMATE DESIGN

MINIMALISM FOR ALL OCCASIONS

Titane 65 will remain a real asset for your projects by finishing the assertive design of buildings. The elegance of its lines and their discretion make it timeless.

GREATNESS IS MEASURED IN THE DETAILS

Finesse is consistent with strength. These lines do not detract from the feeling of security conveyed by Titane 65. This perception is underlined by the careful attention that is given to the details.

- Pivot integrated in the door module: no visible or protruding parts.
- Door spring integrated in the upper transom with a discrete and exclusively designed inspection hatch.

REAL ELEGANCE IS THE WATCHWORD OF ANY CREATION

For Technal, the elegance and design of a product is conveyed in the details, the harmony of the elements thus naturally comes to the fore.

RETHINK YOUR EXPECTATIONS

Titane 65 is a multi-purpose door with dimensions that can be adjusted to suit the design of the building. It easily integrates into your project without ever having to distort or compromise its aesthetic.

It can be approximately 3 metres high by 1.4 metres wide, but its innovative system for connecting the opening frame will enhance its slenderness.



Access hatch for maintenance.



Double handle with Technal logo (exclusive).

TITANE 65

/ PERFORMANCE AND SECURITY

TITANE 65, TIMELESS

Titane 65 is a reinterpretation of the original version, a door that impressed both people and spaces, with more than 100,000 being installed since it was launched, thus establishing a solid and permanent concept.

The new Titane 65 withstands all climatic conditions, being designed to withstand the external elements, it forms a barrier that cannot be affected by the weather.

Its excellent performance characteristics make it a genuine thermal shield, guaranteeing the well-being and the comfort of occupants. The new Titane 65 door is a pioneer in combining durability and high thermal performance. For example, the triple glazed version can achieve $U_w = 0.95 \text{ W/m}^2\text{K}$ ($H \times L = 3 \times 1.4 \text{ m}$), which contributes to the energy performance of your projects.

DESIGNED FOR YOUR PEACE OF MIND

All Titane 65 components are fully integrated. It does not have any protruding elements, making it impervious to common vandalism. It was designed so that the mechanisms cannot be accessed from outside, making it a veritable fortress. Its design offers occupants peace of mind.

MADE-TO-MEASURE SECURITY

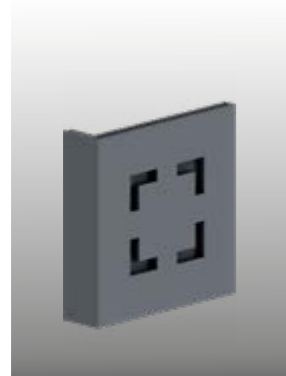
- 1st level:** all doors meet the security requirements for common vandalism (all components are hidden).
- 2nd level:** anti-finger trap protection, essential for all educational buildings or other buildings accommodating young people.
- 3rd level:** break-in delay for all bank, jewellery, luxury goods buildings.



Flat threshold contributing to the straight and continuous lines.

TITANE 65

/ FULL RANGE OF HANDLES



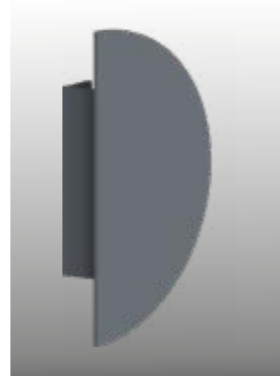
Pull handle with Technal logo (exclusive)



Pull handle large dimensions



Rectangular pull handle



Half-moon handle



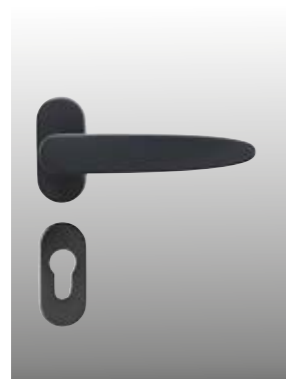
Round push bar deported



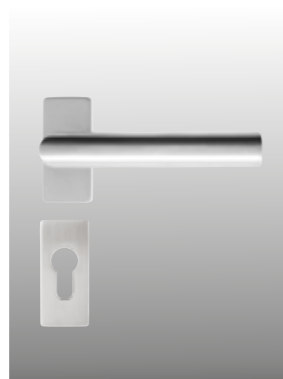
Recessed trilobe push bar



Round inox push bar



Handle with exclusive design Technal with lock



Inox handle with lock

TITANE 65

/ ENHANCED SECURITY



Locking points with stainless steel faceplate



Adjustable lateral strike plate

BASIC LOCKS, MULTI-POINT LOCKS WITH CONTINUOUS FACEPLATE

- 1-point lock with 1/2 turn bolt for the fixed frame
- 3-point lock with continuous stainless steel faceplate, lift-handle and key-lock
- 2 and 3-point internal locks
- Additional points for 3-point lock with continuous stainless steel faceplate
- Extension for additional points



Central lock with spare stainless steel strike plate



Adjustable central strike plate

STRIKE PLATES

- Adjustable strike plates available in polyamide and stainless steel versions
- Spare adjustable stainless steel strike plate as a replacement for the cylinder lock
- Cover behind the strike plates
- Electric strike plates



Electromagnetic lock on semi-fixed opening sash

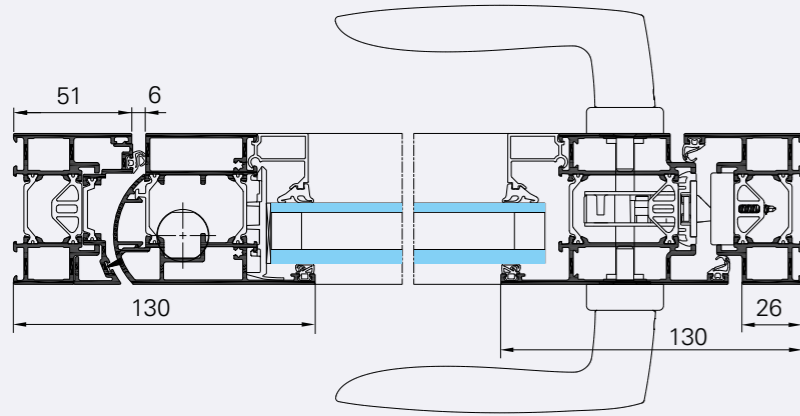


Electromagnetic lock on secondary sash

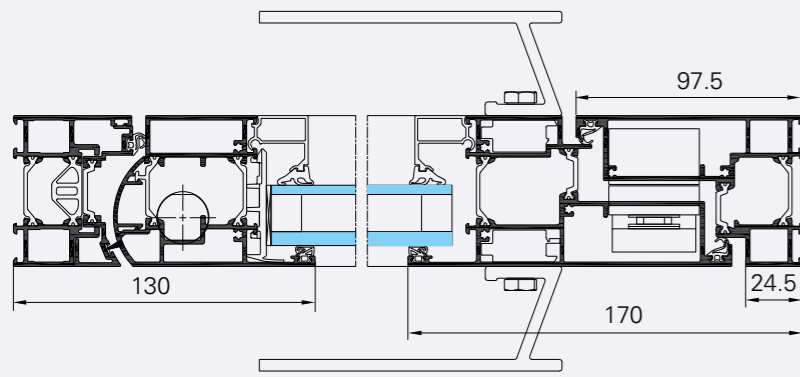
ACCESS CONTROL

- Surface mounted magnetic lock: maximum resistance 300 kg per element
- This magnetic lock can be coupled to a 2-point lock to provide control for daytime access and for night time locking
- Technical mullion for access control integration: door code, fingerprint reader, electronic badge...
- Illuminated push button with buzzer

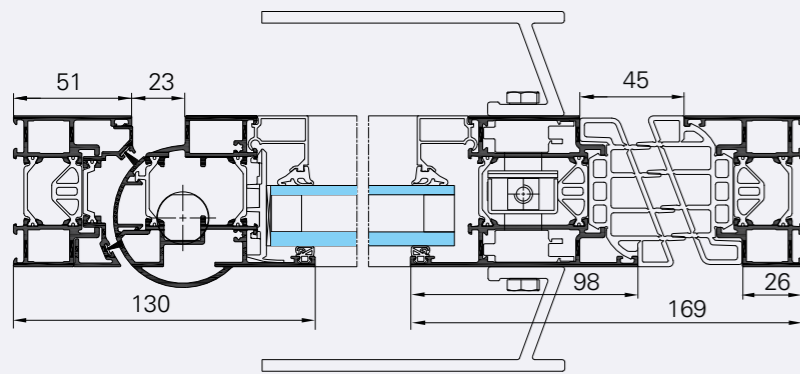
CROSS-SECTIONS



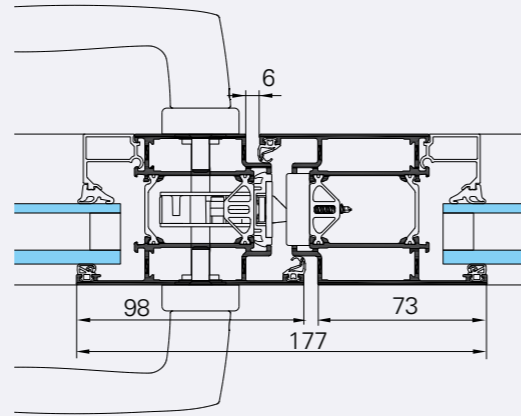
Horizontal section, 1 leaf door, outer opening



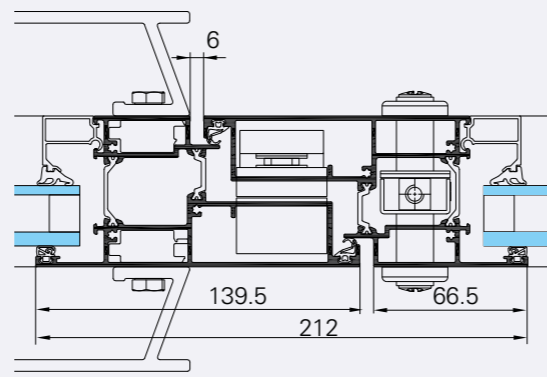
Horizontal section, 1 leaf door, outer opening with magnetic lock



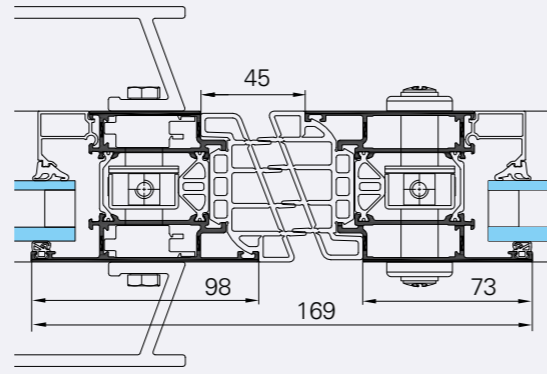
Horizontal section, 1 leaf door, outer opening, anti-finger trap protection (level 2)



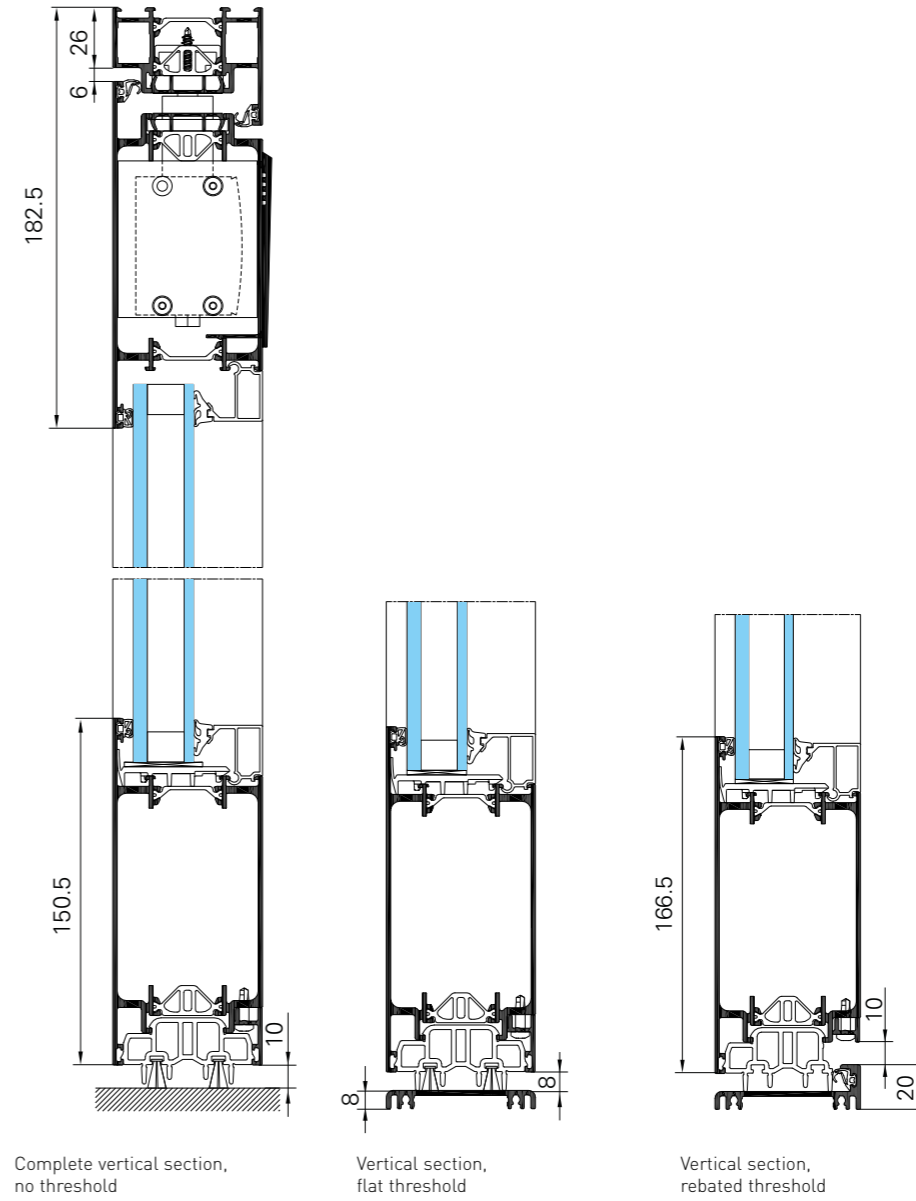
Central node for 2 leaf door



Central node for 2 leaf door



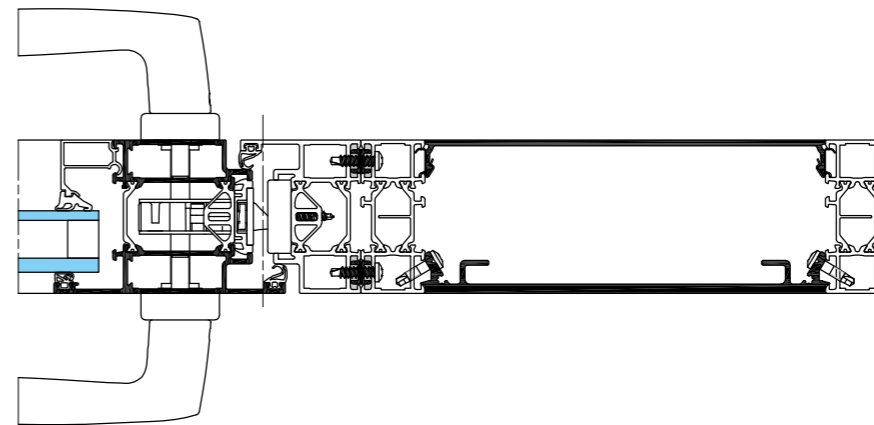
Central node for 2 leaf door



Complete vertical section, no threshold

Vertical section, flat threshold

Vertical section, rebated threshold



Horizontal section, composition by stacking, with technical mullion

PERFORMANCES

WEATHER PERFORMANCES (A.E.V.)				
Configuration	H x W (m)	Air permeability	Water tightness	Résistance to wind pressure
1-leaf door open out with rebated threshold	2.5 x 1.2	Class 4	Class 7B	Class C5
2-leaf door open out with rebate threshold	2.5 x 1.2	Class 3	Class 7B	Class A3
1-leaf door open out flat threshold	2.5 x 1.2	Class 3	Class 1B	Class C5

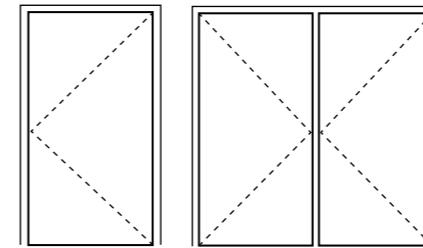
PV N°404/17/161-1

PERFORMANCES ACOUSTIQUES						
Configuration	Vitrage	Glazing in mm	Acoustic attenuation glazing (dB)		Acoustic attenuation door TITANE 65 mm (dB)	
			Rw	RA,tr	Rw	RA,tr
1-leaf door	88.2 Acoustic / 20 (Ar) / 66.2 Phonilam	49	52	47	41	39
	4 / 16 (Ar) / 4	24	30	26	34	30
2-leaf door	88.2 Acoustic / 20 (Ar) / 66.2 Phonilam	49	52	47	41	39
	6 / 16 (Ar) / 10	32	38	34	36	34

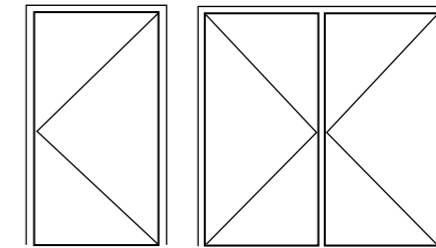
THERMAL PERFORMANCES - Uw*							
Configuration	Dimensions L x H (m)		With Ug = 1,1 + Warm edge** double glazing	With Ug = 1,0 + Warm edge** double glazing	With Ug = 0,8 + Warm edge** triple glazing	With Ug = 0,6 + Warm edge** triple glazing	With Ug = 0,5 + Warm edge** triple glazing
			Uw (W/m².K)	TLw	Sw	Uw (W/m².K)	TLw
1-leaf, glazed	1.25 x 2.18	Uw (W/m².K)	1.5	1.4	1.3	1.2	1.1
		TLw	0.55	0.48	0.49	0.49	0.49
		Sw	0.45	0.36	0.38	0.38	0.38
2-leaf, glazed	1.53 x 2.18	Uw (W/m².K)	1.6	1.5	1.3	1.2	1.2
		TLw	0.49	0.43	0.44	0.44	0.44
		Sw	0.41	0.33	0.34	0.34	0.34
1-leaf, glazed	1.47 x 3.05	Uw (W/m².K)	1.5	1.4	1.2	1.1	0.95
		TLw	0.6	0.53	0.41	0.41	0.41
		Sw	0.49	0.39	0.54	0.54	0.54

* Stainless steel swisspacer or equal

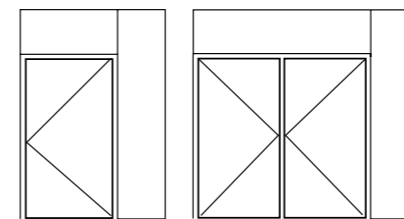
CONFIGURATIONS



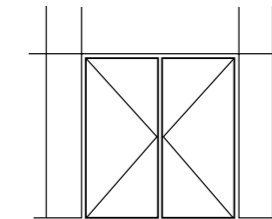
1 leaf - 2 leaves inward opening



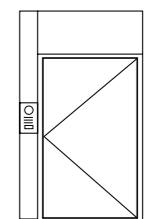
1 leaf - 2 leaves outward opening



Composition with fixed laterals or upper



Integration in GEODE or SPINAL façade



Technical mullion integration

MATERIALS AND PARTS

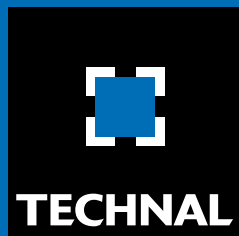
As with all Technal systems, only the best materials and parts are used to minimise maintenance and ensure long-term performance.

- The aluminium profiles are extruded from alloys 6060 Building compliant with EN 12020, EN 573-3, EN 515 and EN 775-1 to 9.
- Fittings are cast from EN 12844 compliant Zamak 5.
- All seals are EPDM or TPE (Thermoplastic elastomer).
- The polyamide thermal breaks are extruded from pA6-6 (0.25 FV).
- Screws are made from stainless steel.

FINISHES AND COLOURS

A wide range of finishes and colours is available to meet individual project requirements, enhancing existing buildings and offering architects and designers greater design freedom:

- Natural anodised in accordance with EN 123731: 2001.
- Polyester coating finishes in a wide range of colours in accordance with "QUALICOAT" instructions.
- TITANE 65 is also available in lacquered finishes with exclusive Technal colours for a stylish and contemporary look.



IMAGINE WHAT'S NEXT

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By  **Hydro**