

# SOLEAL

UNIVERSAL WINDOW  
NON THERMAL  
BREAK

**Architects:** Ameller Dubois & associés  
**Photographer:** Takuji Shimmura

IMAGINE WHAT'S NEXT



**TECHNAL**



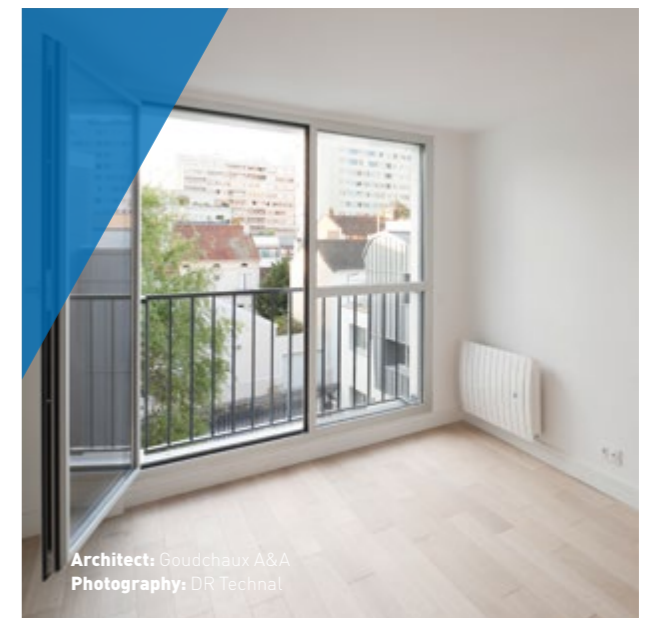
# SOLEAL

/ A NEW GENERATION  
OF WINDOWS

## A PERFECTLY HARMONIOUS SYSTEM

Designed to seamlessly complement the SOLEAL system, this new range combines both technical and aesthetic innovations. It broadens Technal's existing offer with non thermal break windows and patio doors. With a 55 mm (fixed frame) and 65 mm (opening frame) module, this range fulfils architectural requirements thanks to the adjustable glazing and the large-sized frames.

The SOLEAL non thermal break window has many applications as well as exceptional weather performances and wind resistance. Patio doors are also available with flat thresholds. Compatible with other products of SOLEAL range, this window can be set in the same installation environment and use the same hardware. Its opulent and high-quality appearance make it the ideal window for: residential sector, commercial and public buildings. Furthermore the SOLEAL non thermal break window is the perfect solution for external joinery in warmer weather conditions or temperate climate, and for inside offices partitioning.



Architect: Goudchaux A&A  
Photography: DR Technal

# SOLEAL

/ UNIVERSAL WINDOW



## KEY CHARACTERISTICS

### MULTIPLE CONFIGURATIONS

- Window and patio door.
- 1 and 2 leaves.
- Fixed lights.
- Inward openings: 1 leaf, tilt/turn, and bottom-hung.
- Outward opening: top-hung window.
- Installation of composite frames possible by integrating or stacking on bottom or fixed side lights.

### LARGE DIMENSIONS

- Window dimension up to H 2250 x L 1400 mm (1 leaf).
- Glazing infills up to 42 mm.
- Inward opening up to 100 kg.
- Turn/tilt opening up to 130 kg.
- Top hung window up to 140 Kg.

### LOCKING SYSTEMS

- Exclusive Technal-designed handles are available for all configurations to ensure style consistency regardless of opening systems.

### AESTHETICS

- A visible opening frame of 87.5 mm for a stylish and high quality finish.
- Concealed or visible drainage for fixed frames or transoms.
- Architraves available in different shapes and styles.

### MANUFACTURING AND INSTALLATION

- Handle with gear box.
- Simple to manufacture: one corner cleat per frame.
- T-connectors for front installation.
- Installation with or without sill, flashing or architrave.
- Same installation environment and hardware as for the SOLEAL thermal break range.

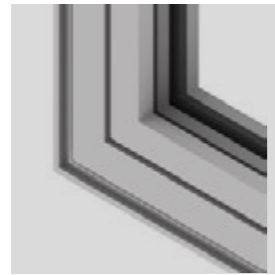
### ACCESSIBILITY

- Flat threshold available on patio door.

# SOLEAL 55

/ A CONTEMPORARY LOOK

## SIMPLE AND HIGH-QUALY



Visible opening

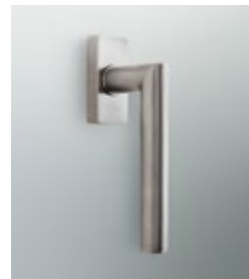


Concealed drainage



Straight lines

## A WIDE RANGE OF LOCKING SYSTEMS



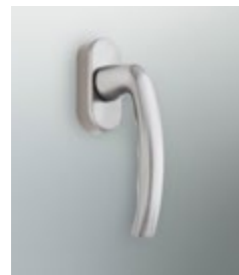
Stainless steel handle



Exclusive Technal-designed handle



Exclusive Technal-designed handle with lock



Classic handle

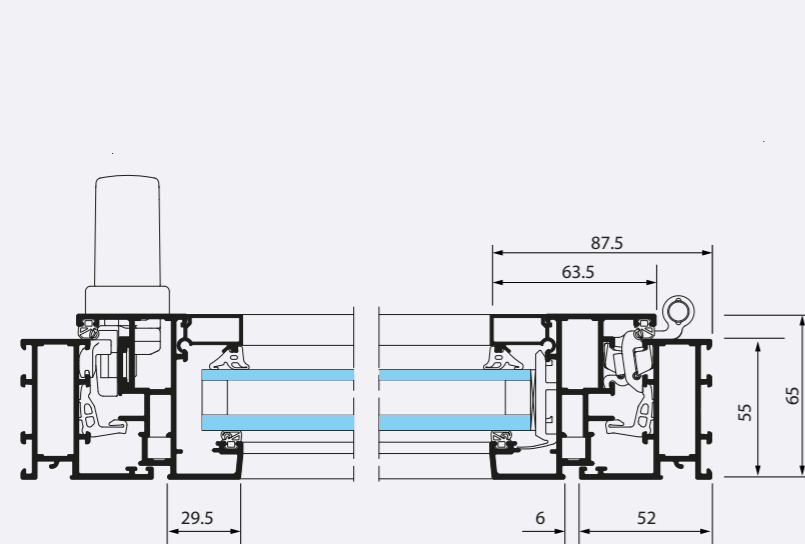


Handle with gear box

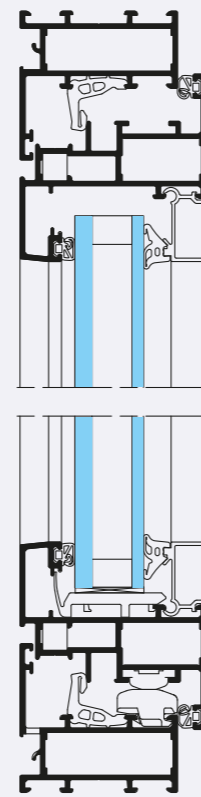


# CROSS-SECTIONS

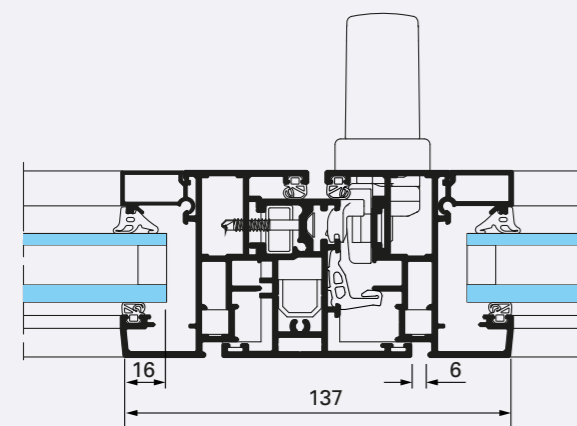
## OPEN-IN 1 AND 2-LEAF WINDOW



Horizontal cross-section

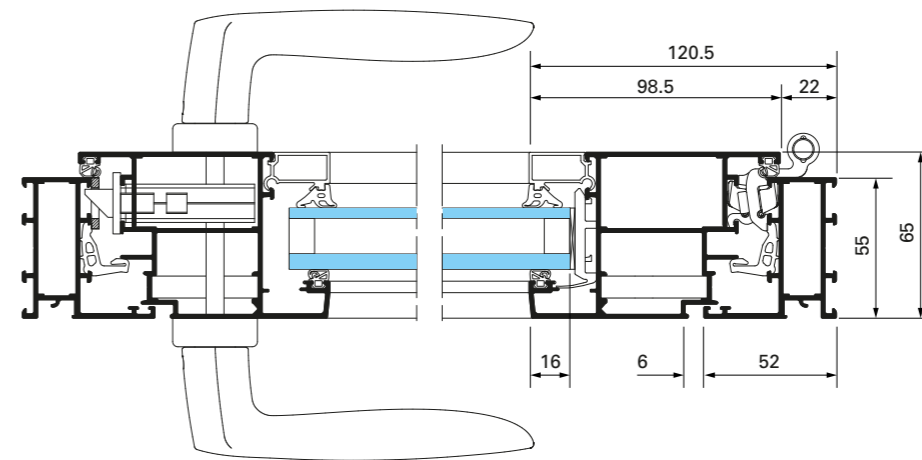


Vertical cross-section

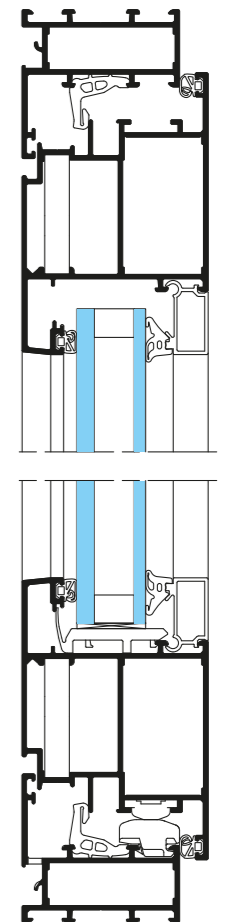


Horizontal cross-section

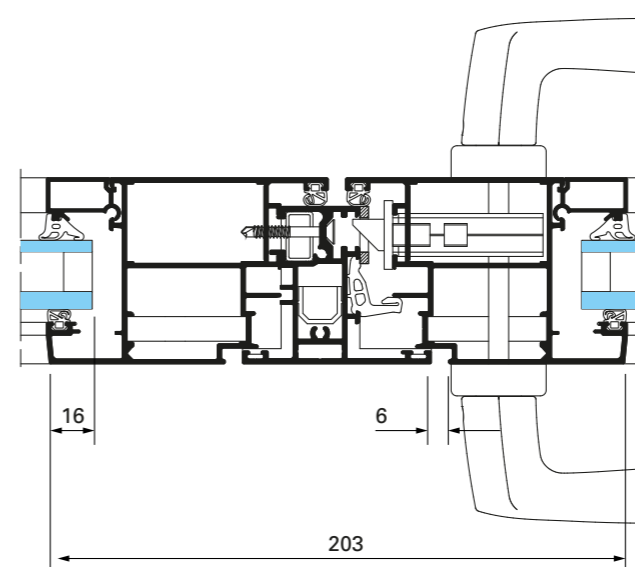
## OPEN-IN 1 AND 2-LEAF PATIO DOOR WITH LOCK



Horizontal cross-section



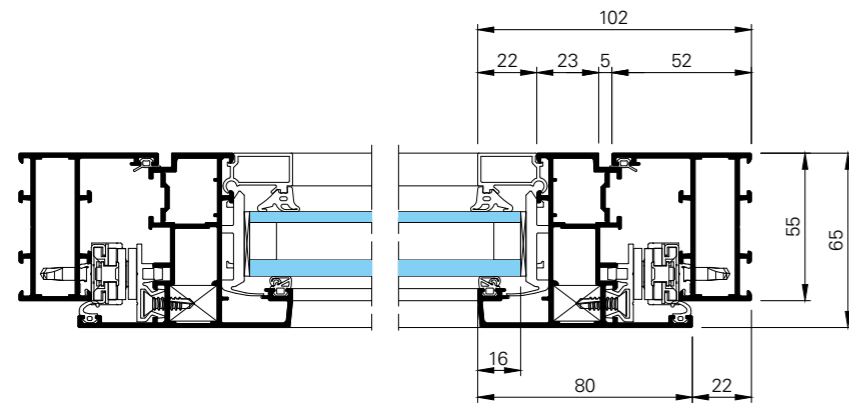
Vertical cross-section



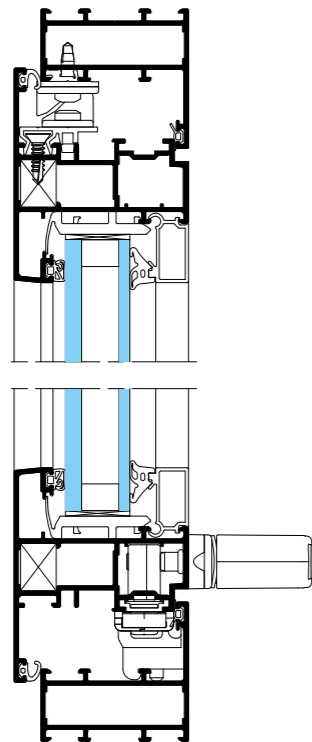
Horizontal cross-section

# CROSS-SECTIONS

OPEN-OUT  
1 LEAF TOP-HUNG WINDOW



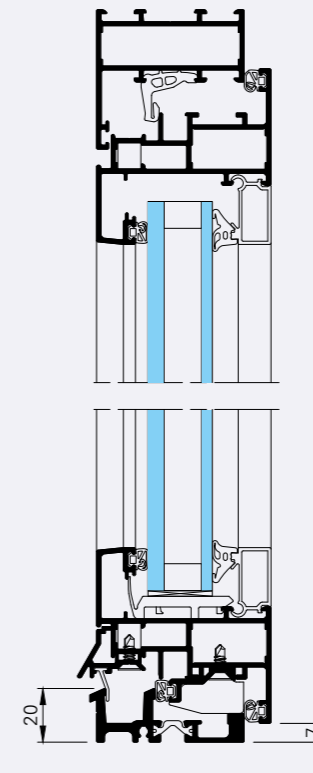
Horizontal cross-section



Vertical cross-section



OPEN-IN  
1 LEAF PATIO DOOR WITH FLAT THRESHOLD



Vertical cross-section

# SOLEAL 55

## / PERFORMANCES

### ACCORDING TO THE EUROPEAN STANDARDS - FCBA

WEATHER TIGHTNESS PERFORMANCES A.E.V. (Air, Water, Wind)				
Application (High x Width)	Test no. according to European standards	Air permeability	Water permeability	Wind resistance
1 leaf tilt/turn window H 1600 x W 1200 mm	FCBA N° 404/15/193-3	Class 4	Class E1200	Class C5
2 leaves patio door H 2250 x W 1595 mm	FCBA N° 404/15/220-2	Class 4	Class E1650	Class B5

Test results performed according to the European Standard  
 - Air permeability test according to EN- 1026, classification according to EN - 12207 .  
 - Water permeability tests according to EN -1027, classification according to EN - 12208 .  
 - Wind resistance test according to EN- 12210, classification according to EN - 12211 .

### ACCORDING TO THE ASTM ORGANISM - SOCOTEC

WEATHER TIGHTNESS PERFORMANCES A.E.V. (Air, Water, Wind)					
Application (High x Width)	ASTM standards	Air permeability		Water permeability	Wind resistance
1 leaf tilt/turn window H 1600 x W 1200 mm	SOCOTEC R15-05-04	0.043 L/sm to 75 Pa 0.118 L/sm to 300 Pa 0.186 L/sm to 600 Pa	0.121 L/sm <sup>2</sup> to 75 Pa 0.334 L/sm <sup>2</sup> to 300 Pa 0.527 L/sm <sup>2</sup> to 600 Pa	1200 Pa no water penetration	3600 Pa: f < 1/400
2 leaves patio door H 2250 x W 1595 mm	SOCOTEC R17-07-02	0.034 L/sm to 75 Pa 0.106 L/sm to 300 Pa 0.187 L/sm to 600 Pa	0.091 L/sm <sup>2</sup> to 75 Pa 0.286 L/sm <sup>2</sup> to 300 Pa 0.507 L/sm <sup>2</sup> to 600 Pa	1500 Pa no water penetration	1600 Pa: f < 1/300 2400 Pa: f < 1/200 2800 Pa: f < 1/175 3200 Pa : f < 1/150
1leaf top hung window H 1500 mm x W 1500 mm	SOCOTEC R15-10-04	0.055 L/sm to -75 Pa 0.111 L/sm to -300 Pa 0.163 L/sm to -600 Pa	0.142 L/sm <sup>2</sup> to 75 Pa 0.288 L/sm <sup>2</sup> to 300 Pa 0.421 L/sm <sup>2</sup> to 600 Pa	1500 Pa no water penetration	4000 Pa : f < 1/1000

Test results performed according to ASTM Standard  
 - Air Permeability test according to ASTM E283-04 (2012).  
 - Water permeability tests according to ASTM E331-00 (2009) and ASTM E547-00 (2009).  
 - Wind resistance test according to ASTM E330 / E330M -14.



# CONFIGURATIONS

## EXTERNAL VIEW DIAGRAMS

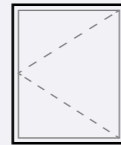
### OPEN-IN



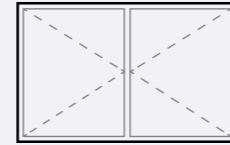
Fixed



Bottom-hung



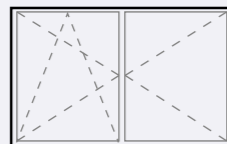
1 leaf



2 leaves



Turn/tilt or  
Tilt/turn 1 leaf

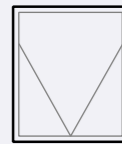


Turn/tilt or  
Tilt/turn 2 leaves

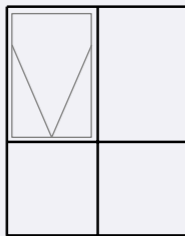


Composite frame

### OPEN-OUT



Top hung  
window



Composite window



Architect: Puig Pujol Architectures  
Photographer: Jordi Canosa



Architect: Ameller Dubois & associés  
Photographer: Takuji Shimmura

## MATERIALS AND PARTS

High quality materials and parts are used to minimise maintenance and ensure long-term performances.

- The aluminium profiles are extruded from EN AW 6060 according to following standards: EN 12020, EN 573-3, EN 515 and EN 775-1 to 9 alloys.
- Fittings are cast from EN 12844 compliant Zamak 5, non-corrosive hardware class 4.
- 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 powder coating finishes in a wide range of colours in accordance with "QUALICOAT" instructions.
- SOLEAL is also available in coated finishes with exclusive Technal colours for a stylish and contemporary look.





IMAGINE WHAT'S NEXT

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