



AP\_BAVISTA\_EN\_10

Think ahead, think **B AVISTA**

**FIBRE  
GLASS  
WINDOWS**

At BOAVISTA we work daily to reduce our ecological impact on the planet, **heading for a neutral carbon footprint.** We compensate the CO<sup>2</sup> emissions that we cannot eliminate by planting trees in the portuguese forest.



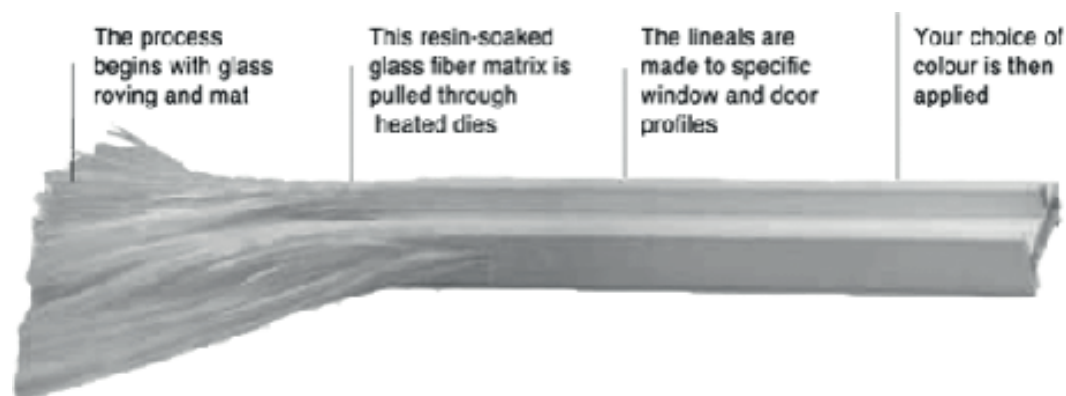


BOAVISTA  
FIBRE  
GLASS  
WINDOWS

Boavista Windows is the first European window systems brand focused on producing sustainable fibreglass windows with high durability and great design.

what is fibreglass?

## fibreglass | what is it?

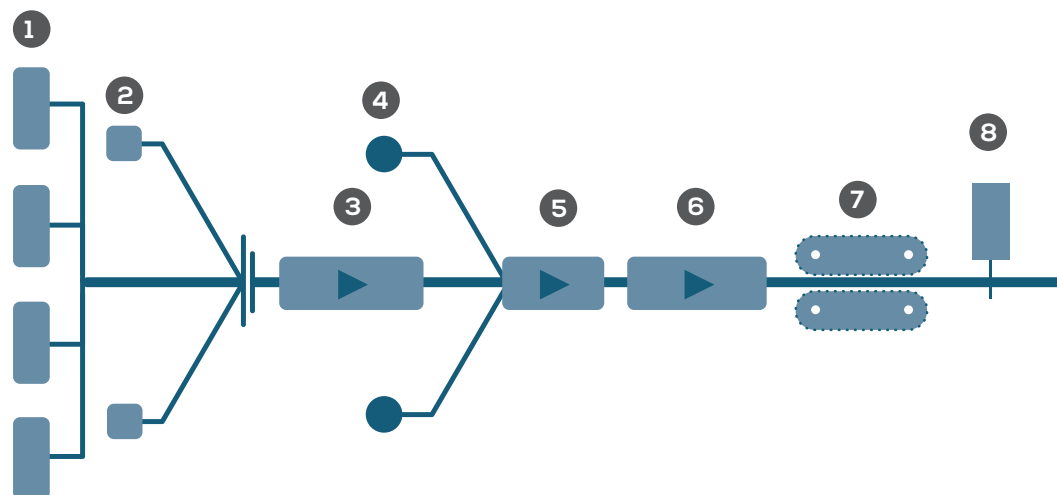


Fibreglass, the common name for GRP (Glass Reinforced Polymers), is a composite material that combines the best properties of each of its individual components.

Well known for its versatility, fibreglass presents a wide application range, from boats to wind turbines.

In the construction industry, fibreglass is used widely when the situation demands a stable, durable and resistant material.

## fibreglass | pultrusion



1  
Unidirectional Glass

2  
Continuous strand mat

3  
Resin bath

4  
Surfacing Veil

5  
Performer

6  
Heated die

7  
Pulling device

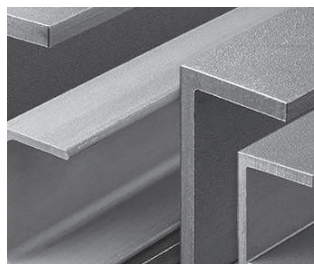
8  
Cut off saw

The profiles used by BOAVISTA for its windows and doors are made using pultrusion.

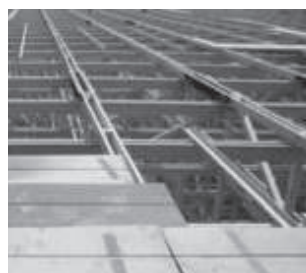
This technology is a fully automated and continuous process that produces profiles with constant cross section.

It is also highly efficient for it only consumes 0,07 kW to produce a linear meter of profile (approx. 1kg).

## fibreglass | examples of use



Structural Profiles



Decks



Bridge, Kolding Denmark



Water Treatment Center



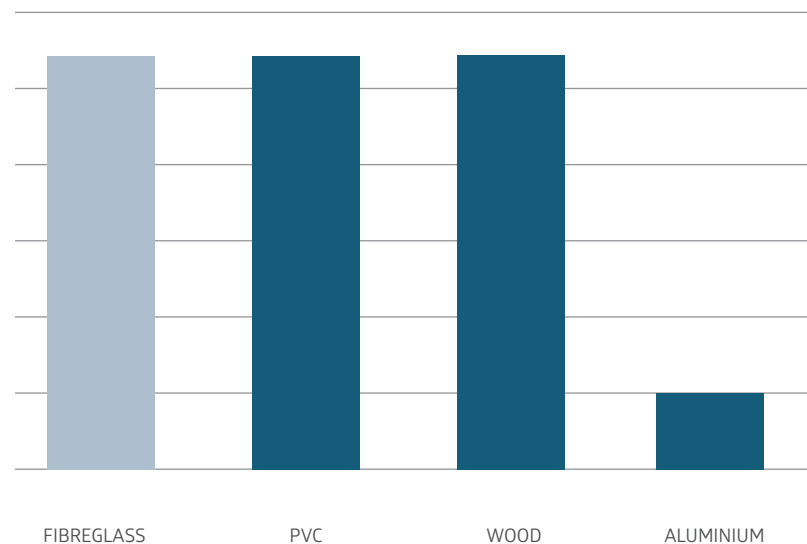
Wind tower blade



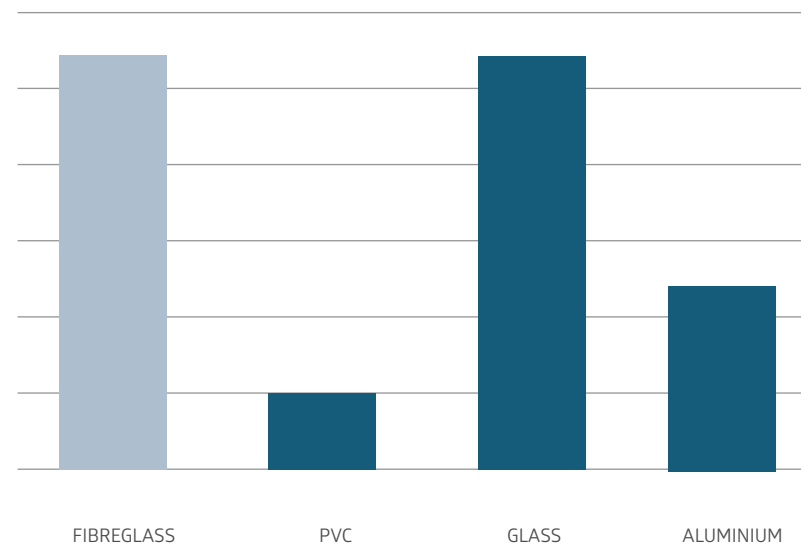
Racing vessels

## fibreglass | pultruded profiles

Thermal Resistance



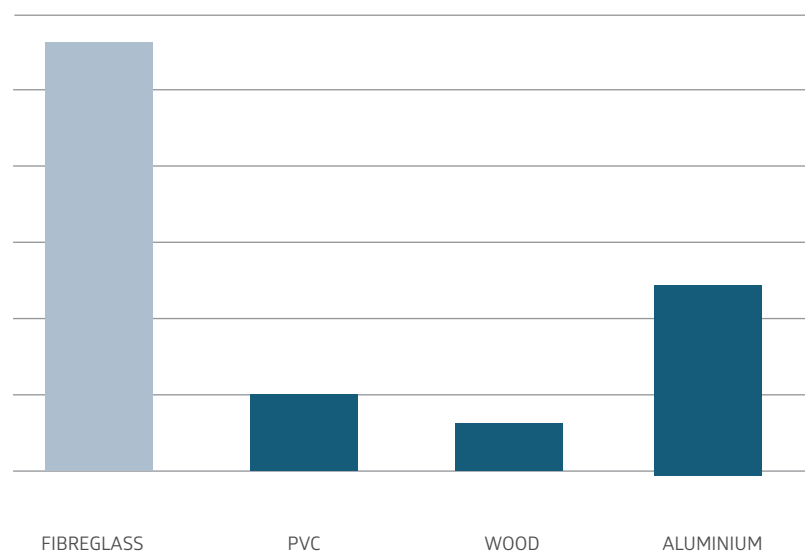
Dimensional Stability



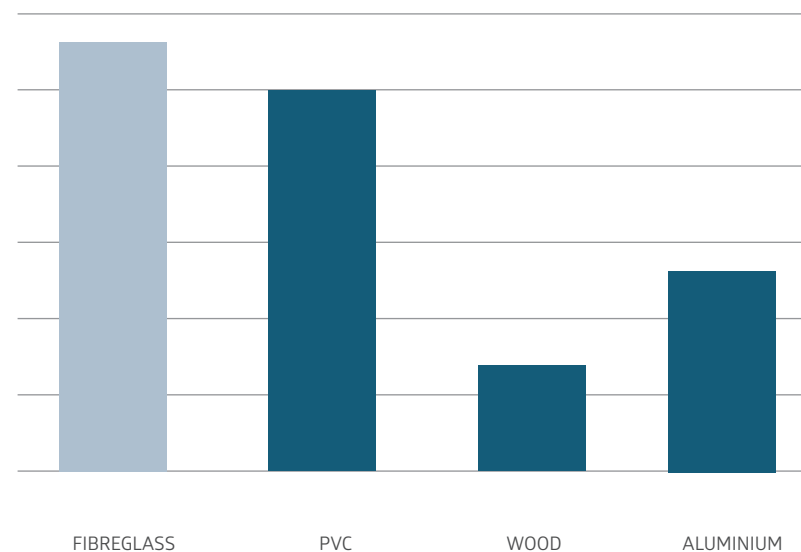
- ✓ low thermal conductivity
- ✓ low electric and acoustic conductivity
- ✓ high dimensional stability very similar to glass
- ✓ not fragile at low temperatures

## fibreglass | pultruded profiles

Resistance/ Weight Ratio



Resistance to Corrosion/ Rot



- ✓ excellent resistance/ weight ratio
- ✓ excellent resistance to rot
- ✓ excellent resistance to corrosion
- ✓ excellent mechanical properties



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## Boavista Systems

- BWTT 60 – Tilt & Turn
  - BWSL 45 – Sliding
  - BWSLD 45 – Sliding
  - BWD60 Door
  - BWDS 35 – Double Sash
  - BWS 35 – Sash
- 

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## Premium Systems

- BWSL45 Evolution
  - BW060 – Casement
  - Vintage Series
-

# BWTT 60

## tilt & turn

# boavista systems

Boavista Windows tilt & turn      60 mm sash width

## BWTT 60 tilt & turn

- Most versatile window system with multiple configurations and operating modes;
- Compatible with other BOAVISTA series;
- Standard hidden hinge system: perfect aesthetic and optimum functionality

### Performance Test

Requirements	Test Method	Test Results	
Thermal Transmittance [Uw]	ISO 12567-1 2010	From 0,74 W/m² oK	🌡️
Acoustic Insulation [Rw]	ISO 10140-1 2010 ISO 10140-2 2010 ISO 10140-4 2010 NP EN ISO 717-1 2009	39dB (-2;-4)	🔊
Air Tightness	EN 1026 2000 EN 12207 1999	4	🚪
Water Tightness	EN 1027 2000 EN 12208 1999	8A	☁️
Wind Load Resistance	EN 12211 200 EN 12210 1999 EN 12210 1999/AC 2002	C5	🌪️





## BWTT 60 tilt and turn Window

**Project:** New build residential building in Lavra Beach, Porto, Portugal

**System:** BWTT60

**Architect:** C. M. Figueirinhas Arquitectos



## BWTT 60 tilt and turn Window

**Project:** New build residential building in Lavra Beach, Porto, Portugal

**System:** BWTT60

**Architect:** C. M. Figueirinhas Arquitectos

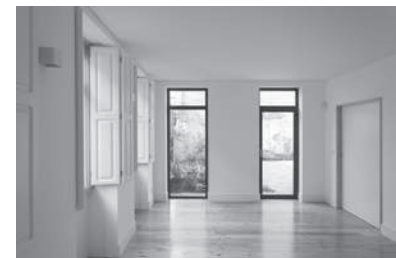


## BWTT 60 tilt & turn Window

**Project:** Red House in Porto

**System:** BWTT60

**Architect:** César Machado Moreira





## BWTT 60 tilt and turn Window

**Project:** Refurbishment of existing building in Leça da Palmeira, Porto, Portugal

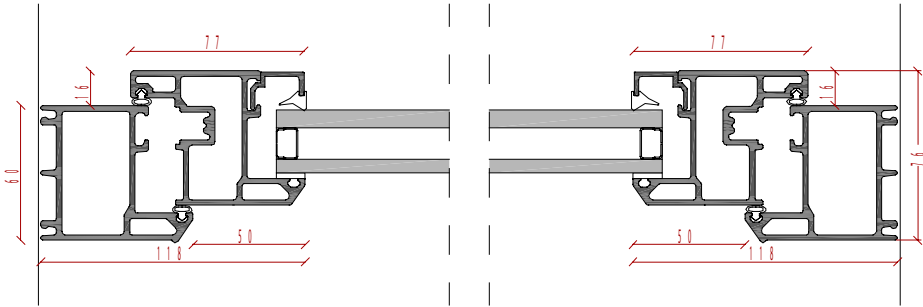
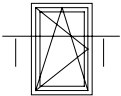
**System:** BWTT60

**Architect:** C. Prata Arquitectos

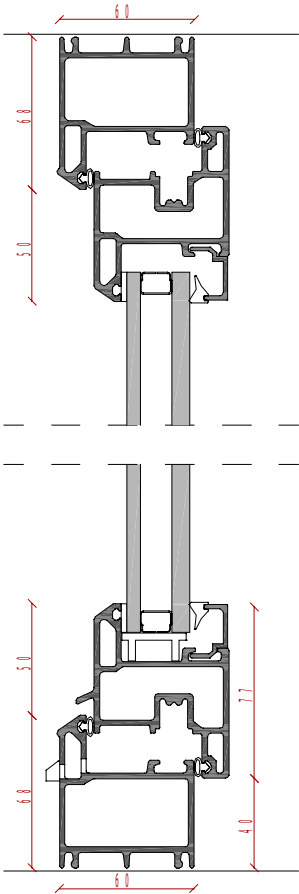
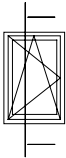
# Technical Drawing BWTT TT or SO



Horizontal Section



Vertical Section



# BWSL45

## Sliding

# boavista systems





Boavista Windows Sliding 45 mm sash width

## BWSL 45 Sliding

- Based on a modular system that allows multiple configurations;
- Standard sashes up to 250 kg (ex: 2,2 x 2,85 m);
- Low frame compatible to flush installations;
- Versatile lock upgradable to multi-point locking;



### Performance Test

Requirements	Test Results	
Acoustic Insulation [Rw]	35dB (-2; -4)	
Air Tightness	3	
Water Tightness	5A	
Wind Load Resistance	B3	





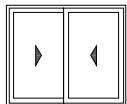
## BWSL45 Sliding Window

**Project:** Residential project in Leça da Palmeira, Portugal

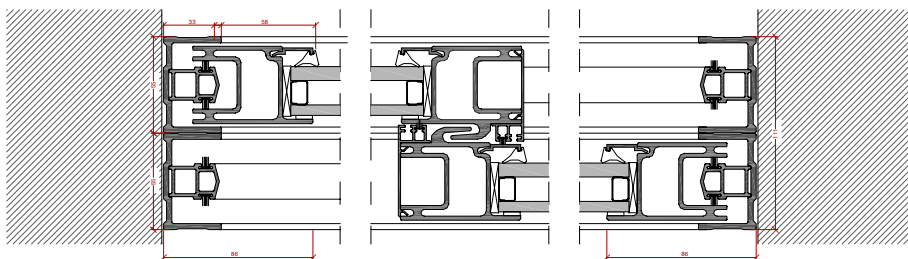
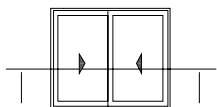
**Architects:** CPrata Arquitectos

**Finish:** RAL 7021 – Textured

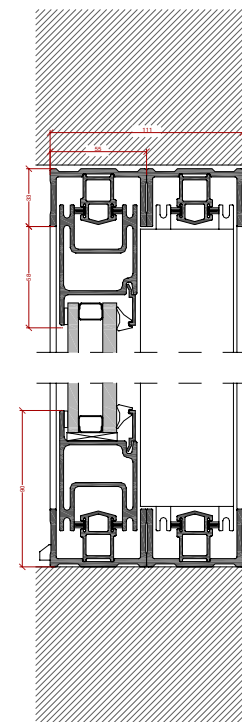
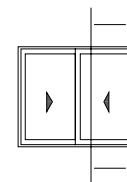
# Technical Drawing BWSL 45



Horizontal Section



Vertical Section



# boavista systems

Boavista Windows Sliding Drainage 45 mm sash width

## BWSLD 45 Sliding

- Based on a modular system that allows multiple configurations;
- Standard sashes up to 250 kg (ex: 2,2 x 2,85 m);
- Low frame compatible to flush installations;
- Versatile lock upgradable to multi-point locking;

### Performance Test

Requirements	Test Method	Test Results	
Thermal Transmittance [Uw]	ISO 12567-1 2010	From 1,09 W/m² oK	🌡️
Acoustic Insulation [Rw]	ISO 10140-1 2010 ISO 10140-2 2010 ISO 10140-4 2010 NP EN ISO 717-1 2009	26dB (-1; -2)	🔊
Air Tightness	EN 1026 2000; EN 12207 1999	3	🌀
Water Tightness	EN 1027 2000 EN 12208 1999	7A	☁️🌧️
Wind Load Resistance	EN 12211 200 EN 12210 1999 EN 12210 1999/AC 2002	C4	🌀





## BWSLD45 Sliding

**Project:** New build – residential project in Matosinhos Beach, Porto, Portugal

**System:** 2 rail BWSLD45 11 meters wide



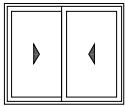
## BWSLD45 Sliding Door

**Project:** Residential Project in Lavra Beach, Portugal

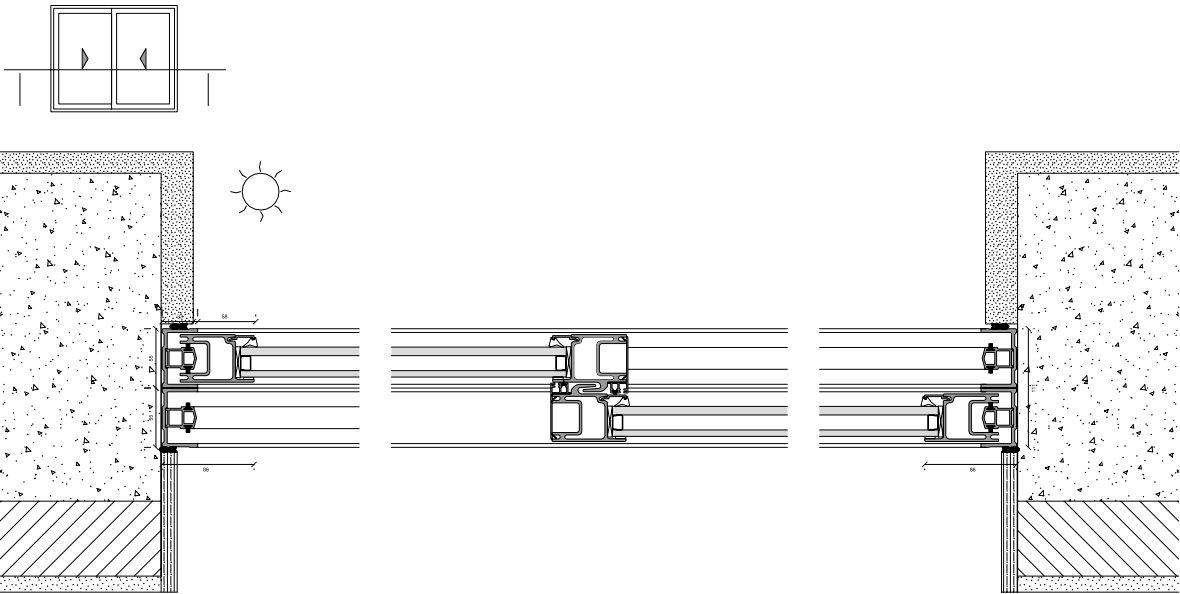
**System:** Sliding Finish

**Finish:** RAL 7021 – Textured

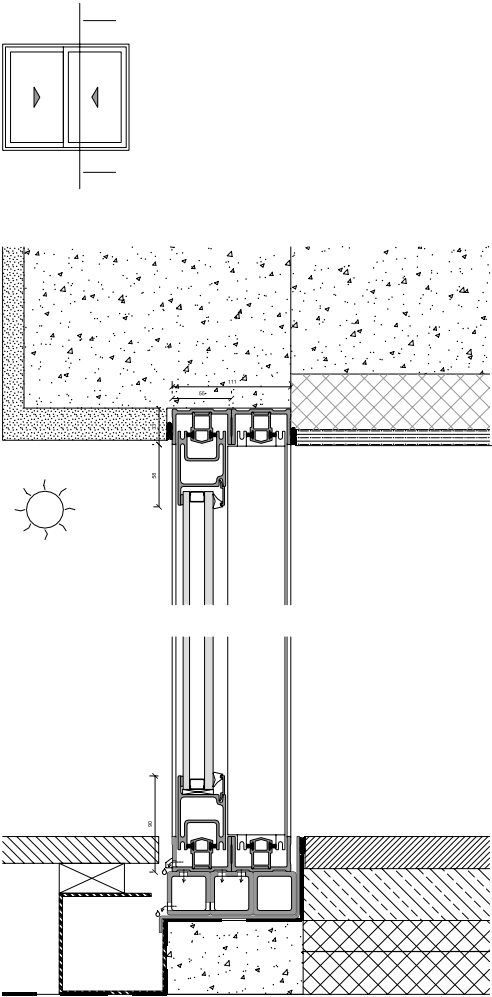
# Technical Drawing BWSLD45



Horizontal Section



Vertical Section



# BWD60

## Door




# boavista systems

Boavista Windows door 60 mm sash width

## BWD60 Door

- Allows secure locking system, with multiple locking points;
- Can be used with glass or with opaque fibreglass panel;
- Customizable handles and colours

### Performance Test

Requirements	Test Method	Test Results	
Air Tightness	EN 1026:2016 EN 12207:2016	3	
Water Tightness	EN 1027:2016 EN 12208:1999	4A	
Wind Load Resistance	EN 12211:2016 EN 12210:2016	C5	





## BWD60 Door

**Project:** New build – residential project in Matosinhos Beach, Porto, Portugal

**System:** BWD60



## BWD60 Door

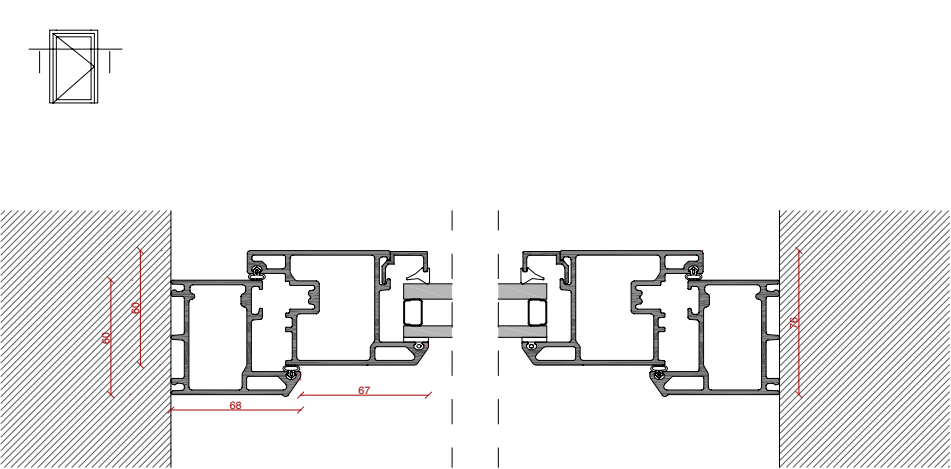
**Project:** Residential Building in Lisbon Portugal

**System:** BWD60

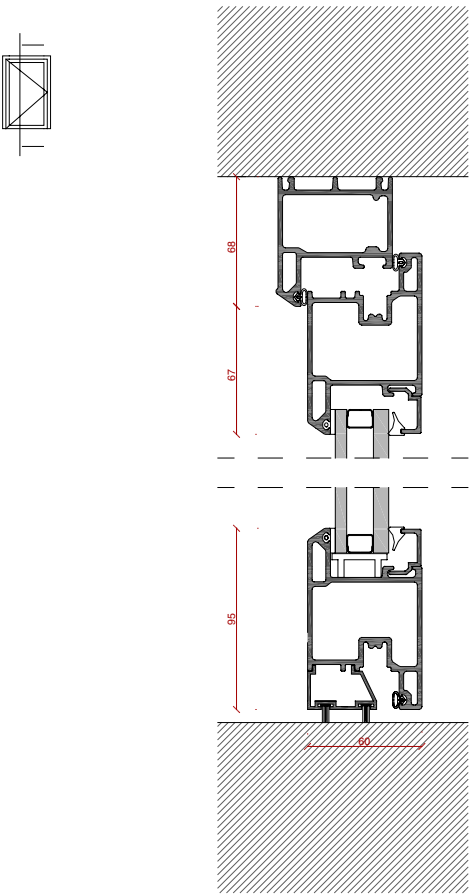
**Finish:** 9004 matt black

# Technical Drawing

Horizontal Section



Vertical Section



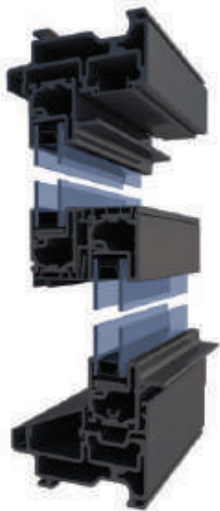
# BWDS 35

## Double Sash Window

Boavista Windows Double Sash 35 mm sash width

# BWDS 35 Double Sash Window

- Both panels slide;
- The bottom panel can be used as a balustrade;
- Great minimal looks



## Performance Test

Requirements	Test Method	Test Results	
Thermal Transmittance [Uw]	ISO 10077-1:2006 ISO 10077-2:2006	From 1,23 W/m² oK	🌡️
Acoustic Insulation [Rw]	NP EN 14351-1:2006 + 1:2011	29dB (-1; -2)	🔊
Air Tightness	EN 1026 2000; EN 12207 1999	3	📄
Water Tightness	EN 1027 2000 EN 12208 1999	8A	☁️
Wind Load Resistance	EN 12211 200 EN 12210 1999 EN 12210 1999/AC 2002	C2	🌪️





## BWDS 35 Double Sash Window

**Project:** Commercial project in Oxfordshire, England

**System:** BWDS35 – Double Sash Dimensions: 1000mm x 2000mm;

**Finish:** RAL 7021 – Textured grey



## BWDS 35 Double Sash Window

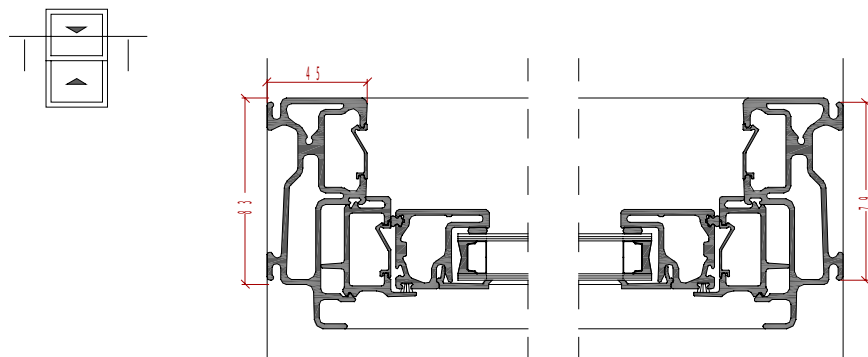
**Project:** Commercial project in Oxfordshire, England

**System:** BWDS35 – Double Sash Dimensions: 1000mm x 2000mm;

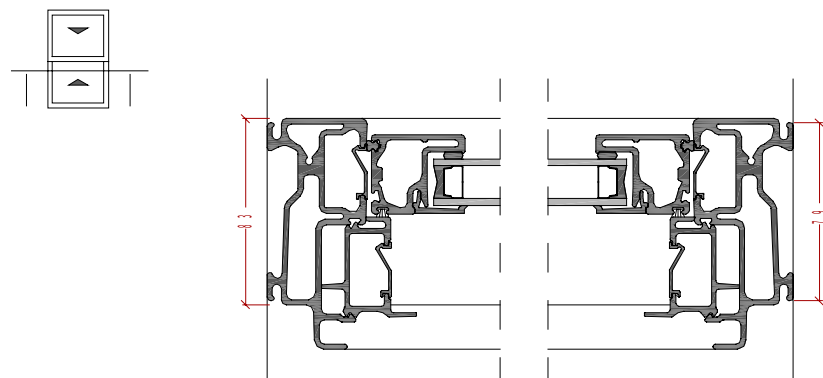
**Finish:** RAL 7021 – Textured grey

# Technical Drawing

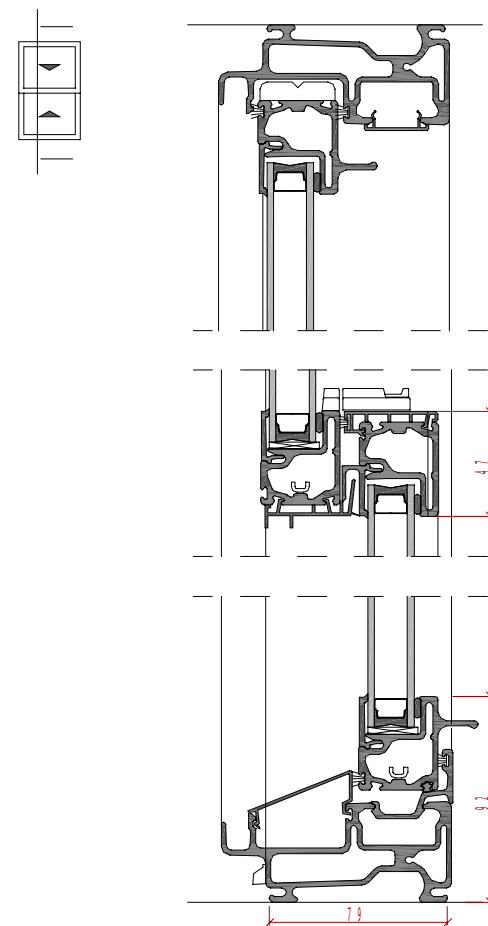
Horizontal Section



Horizontal Section



Vertical Section



# BWS 35

## Sash

# boavista systems

Boavista Windows Sash 35 mm sash width

## BWS 35 Sash

- Window with excellent ITT results, among the best of its class;
- Fixed upper sash and operable lower sash;
- Twin spring system makes it easy to use;
- Operable sash can be tilted for exterior cleaning



### Performance Test

Requirements	Test Method	Test Results	
Thermal Transmittance [Uw]	ISO 10077-1 2006 ISO 10077-2 2012	From 1,23 W/m² oK	🌡️
Acoustic Insulation [Rw]	ISO 10140-1 2010 ISO 10140-2 2010 ISO 10140-4 2010 NP EN ISO 717-1 2009	29dB (-1; -2)	🔊
Air Tightness	EN 1026 2000 EN 12207 1999	4	🌬️
Water Tightness	EN 1027 2000 EN 12208 1999	7A	☁️
Wind Load Resistance	EN 12211 200 EN 12210 1999 EN 12210 1999/AC 2002	A4	🌪️





## BWS 35 Sash Window

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**Project:** Residential project in Ontario, Canada

**System:** BWS35

**Finish:** RAL 9016 – Matt black



## BWS 35 Sash Window

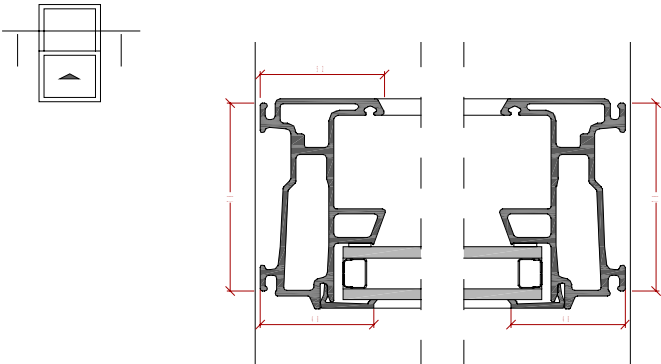
**Project:** Residential refurbishment in a former convent, England

**System:** BWS35

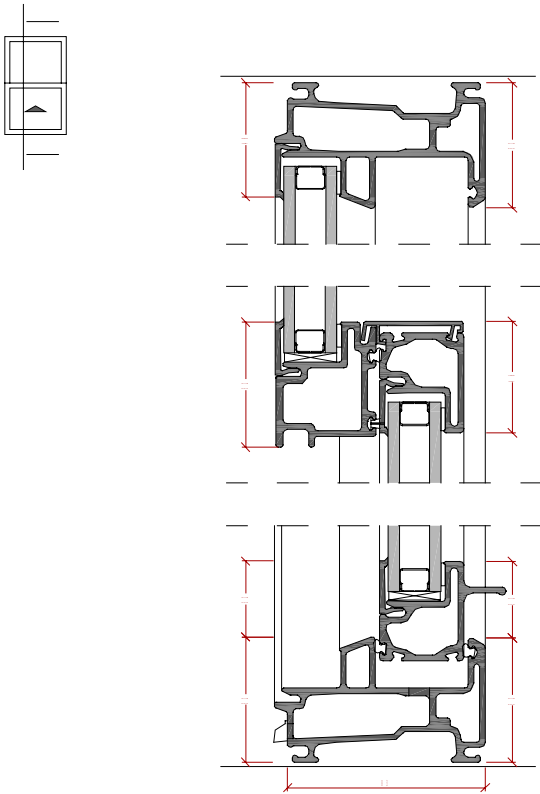
**Finish:** RAL 9003 matt white

# Technical Drawing Sash 1

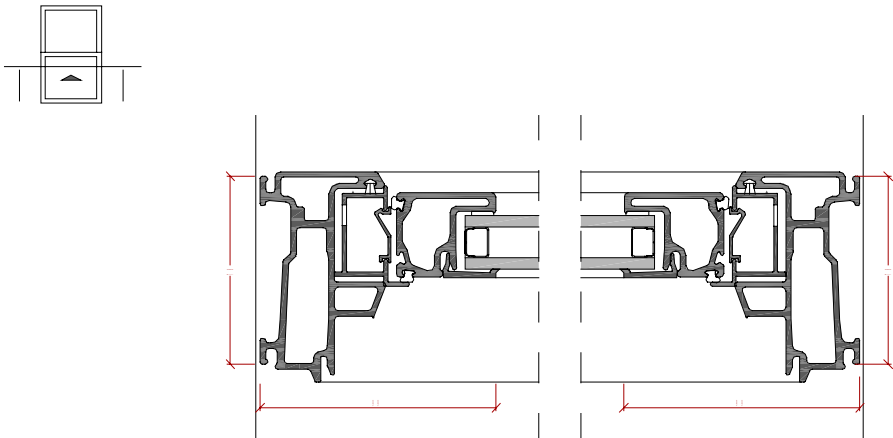
Horizontal Section



Vertical Section



Horizontal Section





# Fibreglass Windows PREMIUM SYSTEMS

think ahead, think BOAVISTA!





# BWSL Evolution

boavista systems

# BWSL Evolution

- Based on a modular system that allows multiple configurations;
- Standard sashes up to 7,5 m²;
- Low frame compatible to flush installations;
- Sleek elegant design

## Performance Test

Requirements	Test Results	
Acoustic Insulation [Rw]	35 dB (-2;-4)	
Air Tightness	3	
Water tightness	5A	
Wind Load Resistance	B3	





## BWSL Evolution

**Project:** Residential building in Southampton, England

**System:** BWSL45 Evolution

**Finish:** RAL 7016 – textured



## BWSL Evolution

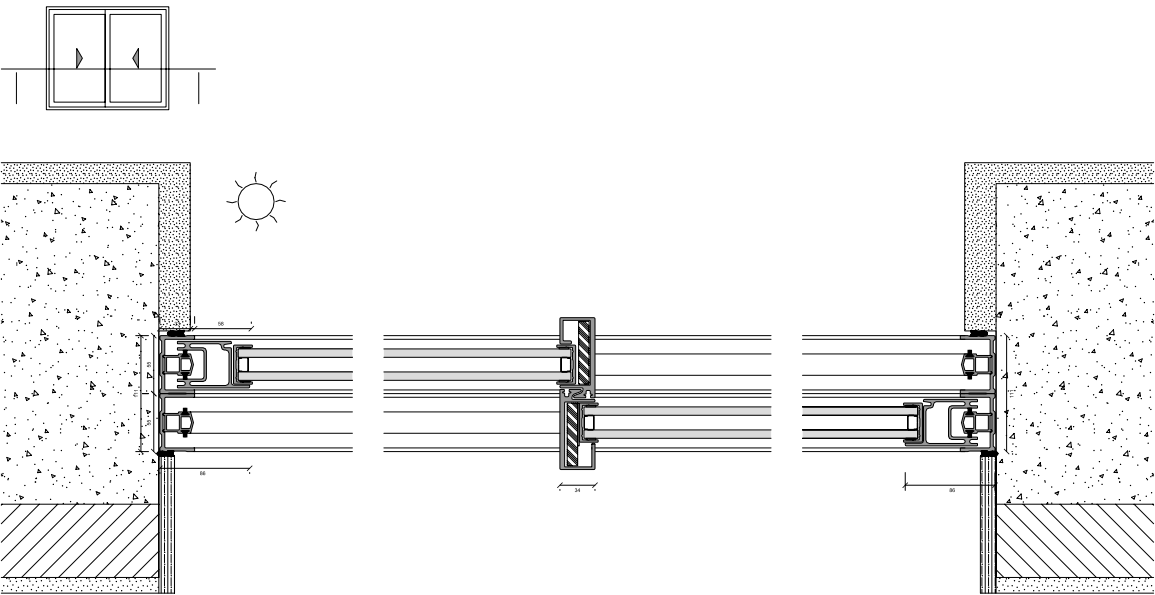
**Project:** Residential apartment building in Lisbon, Portugal

**System:** BWSL Evolution

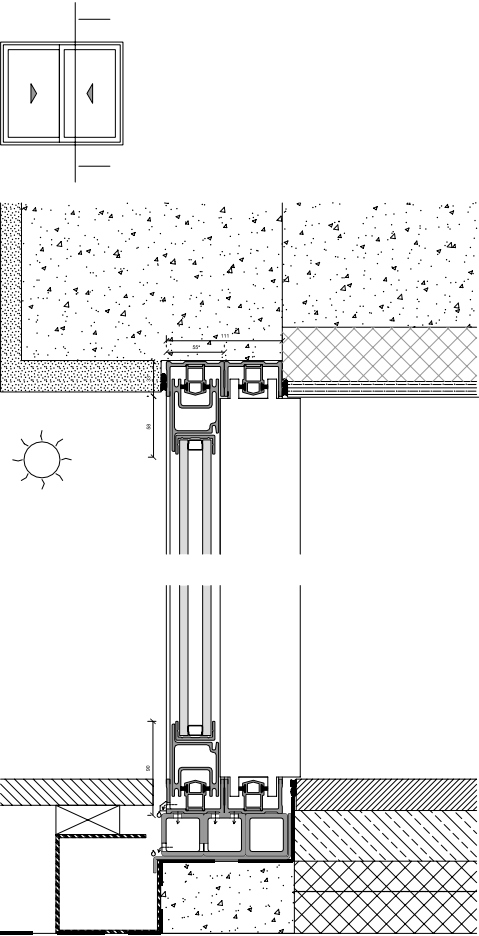
**Architect:** GJB Arquitectos

# Technical Drawing

Horizontal Section

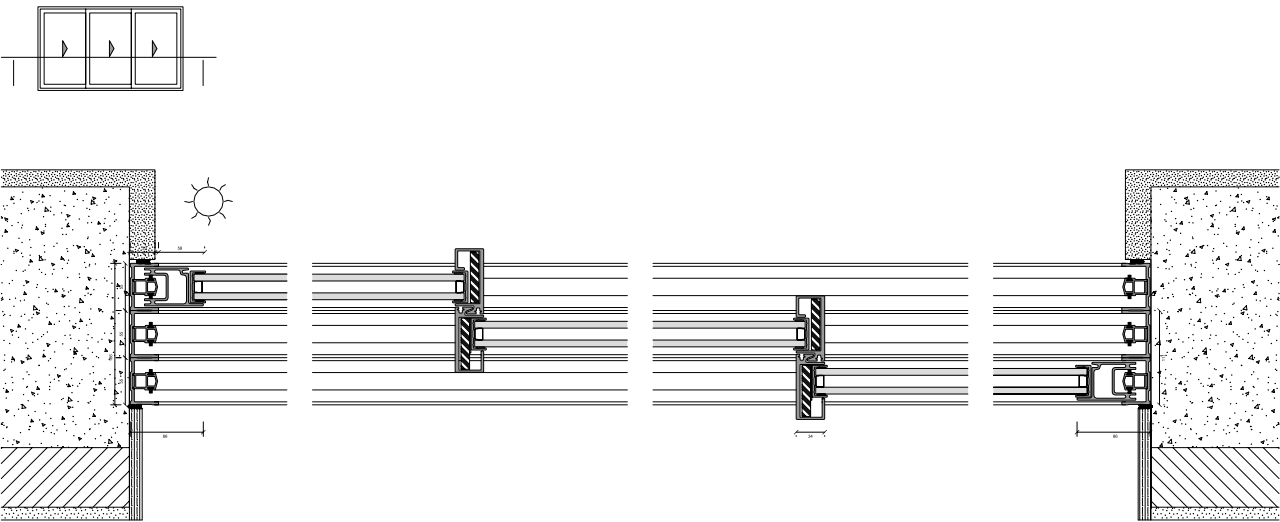


Vertical Section

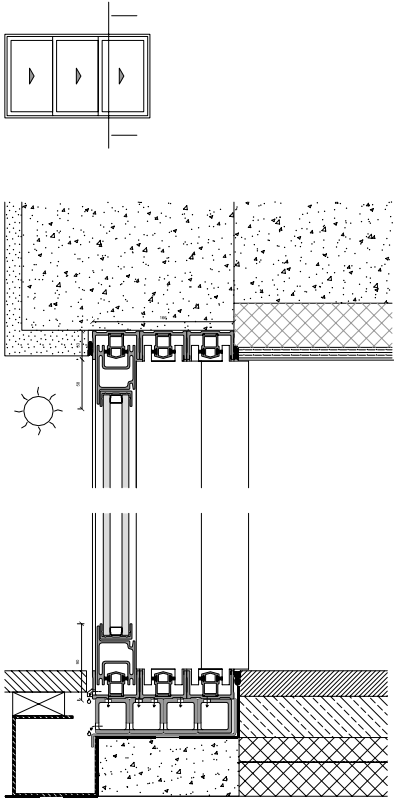


# Technical Drawing

Horizontal Section



Vertical Section

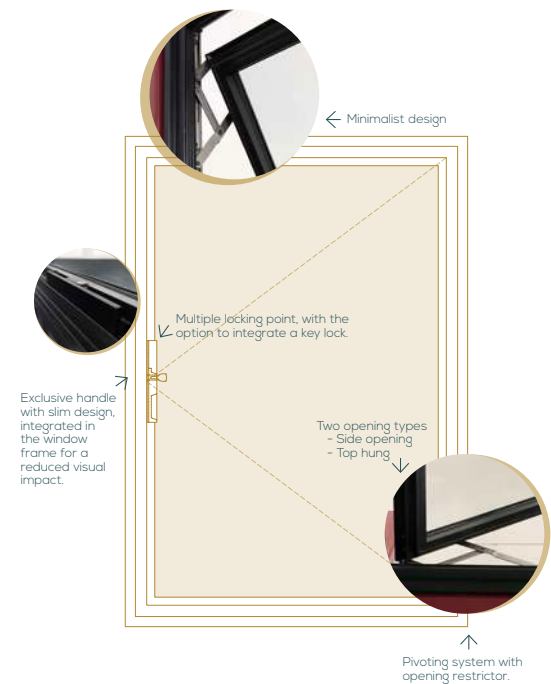


# BWO 60

## Outward Opening

# BWO 60 Outward Opening Window

- With slim frame, for a minimal look;
- Outward side hung opening or top hung projecting window



## Performance Test

Requirements	Test Results	
Thermal Transmittance [Uw]	From 1,19 W/m2 oK	
Acoustic Insulation [Rw]	37 dB (-1;-4)	
Air Tightness	4	
Water Tightness	6A	
Wind Load Resistance	C4	





## BWO 60 Outward Opening Window

**Project:** Grade I listed building in Sussex Square, Brighton

**System:** BWO60

**Finish:** RAL 7024

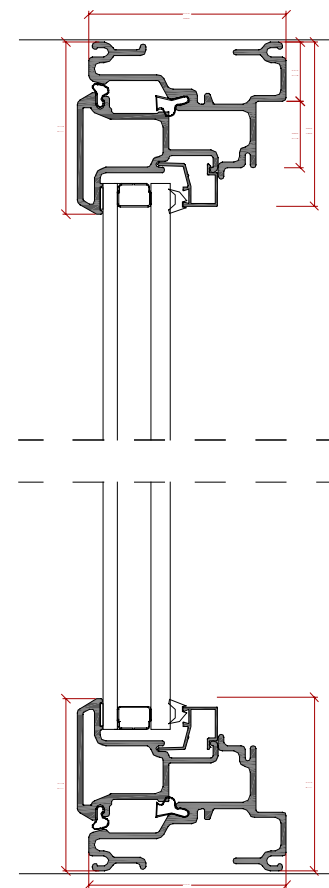
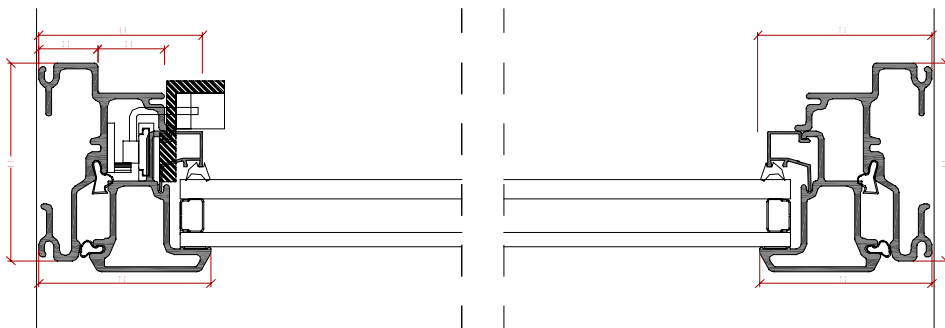


## BWO 60 Outward Opening Window

**Project:** Residential Project, Ontario, Canada

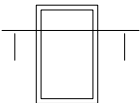
**System:** BW060

**Finish:** RAL 9016 – Matt black

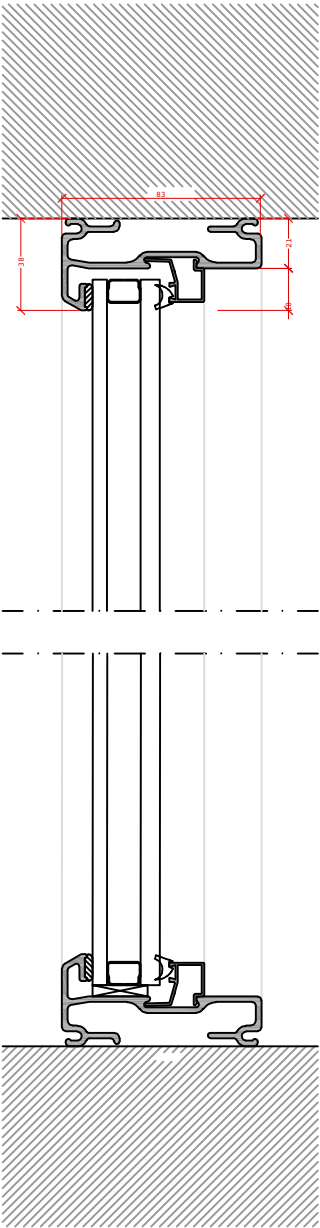
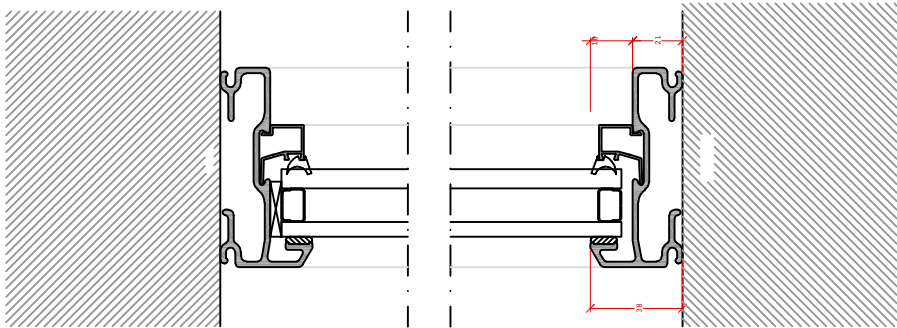


# Technical Drawing

Horizontal Section



Vertical Section








# Vintage Series

## Vintage Series

- Vintage look with modern performance;
- Fibreglass reinforced profiles provide;
- Great durability even in harsh conditions

### Performance Test

Requirements	Test Results	
Thermal Transmittance [Uw]	From 0,74 W/m2 oK	
Acoustic Insulation [Rw]	39dB (-2; -4)	
Air Tightness	4	
Water Tightness	8A	
Wind Load Resistance	C5	





## Vintage Series

**Project:** Fintech Service Center in Matosinhos, Portugal

**System:** Vintage Series

**Finish:** RAL 7016 – textured



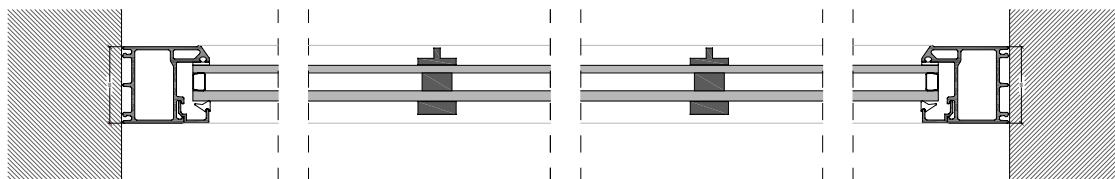
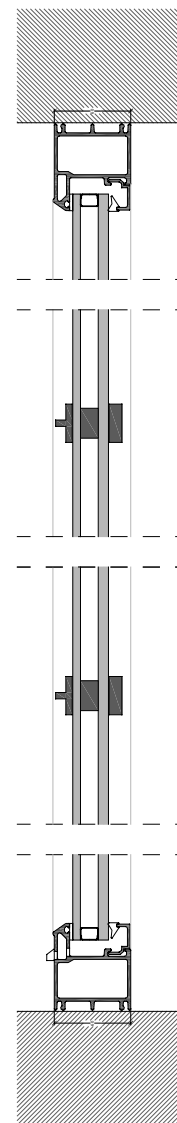
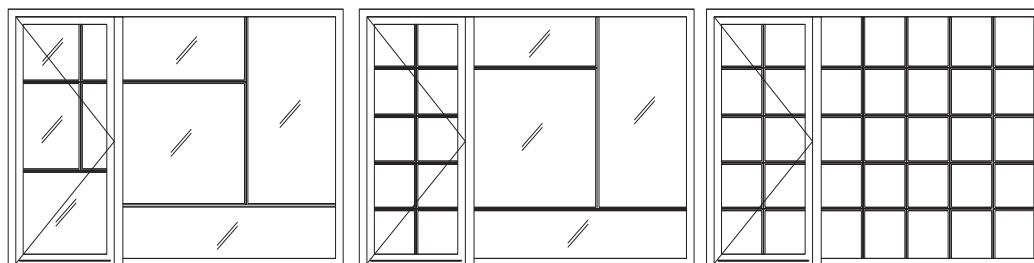
## Vintage Series

**Project:** New build residential building in Lavra Beach, Porto, Portugal

**System:** BW Vintage Series

**Architect:** C. M. Figueirinhas Arquitectos

# Technical Drawing





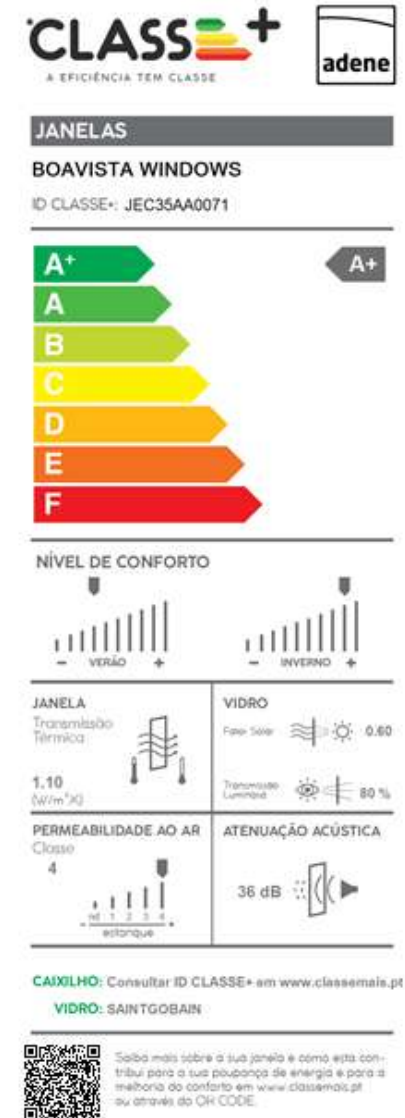
## Energy Rating for windows

### How does it work?

The Window Energy Rating system follows a similar pattern to appliance energy labels, with windows being rated between A or A+ (the best) and G (the worst).

It can be used by consumers and specifiers to compare in a simple and quick way the energy efficiency of a fenestration.

Windows can account for over 25% of a heating bill and a difference in energy saving between an A or B-rated window could be an additional 6.5% on your energy bills.





## Technical Support

Our technical team is available to study your projects BOAVISTA provides assistance in:

- Detailed design
- Bills of quantities
- Window schedules
- Specifications.



Join the Design Revolution  
[www.boavistawindows.com](http://www.boavistawindows.com)



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