



# *Permateelisa BlindTech*

Façade energy and comfort control

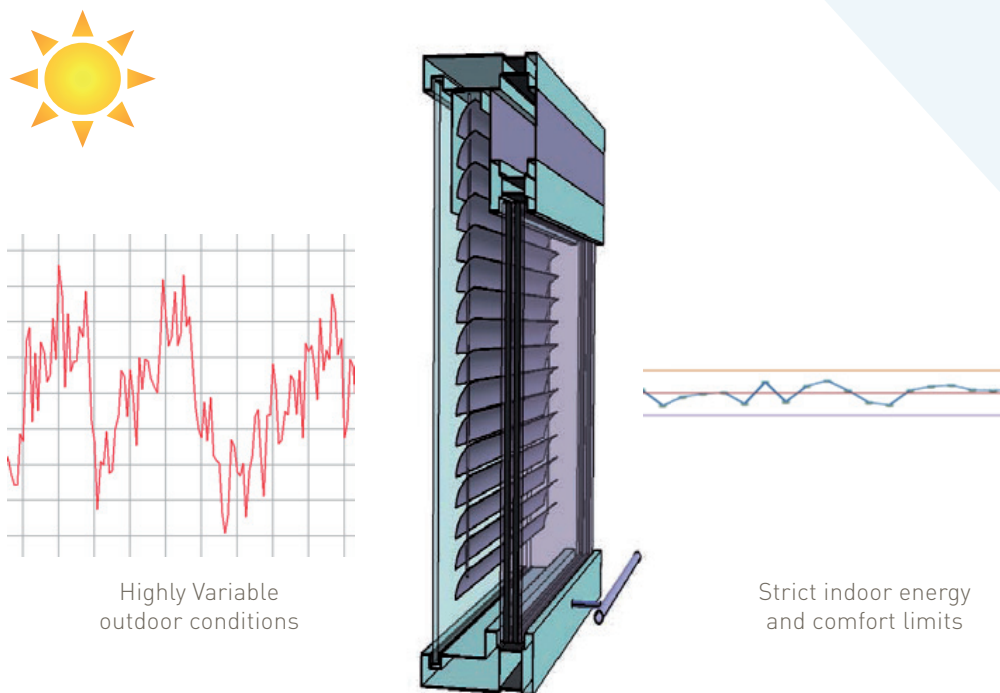
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**U L T R A**  
technology

## Introduction

Permasteelisa's core business is to design, manufacture and install bespoke curtain wall façade systems worldwide. In modern practice, the solar shading and its control systems are often an integral part of the façade package as the overall performance of the façade will, to a great extent, be influenced by the functional behaviour of the automated solar shading. When designed and operated in an optimised way, the façade with integrated blinds and control systems will lead to a better energy performance and an improved thermal, visual and acoustic comfort for the building occupants.

## A turn-key solution

Traditionally the curtain wall façade, the solar shading and the solar shading system controls are provided by different suppliers. Too often, a specification and/or functional mismatch between all these components is observed, resulting in extra building costs, underperformance of the building and dissatisfied end-users and clients. The Permasteelisa Group decided to overcome these problems by launching, in 2009, the first ultra-performing *mfree-SCCF* systems, with an integrated Façade Energy & Comfort Control solution: **PermasteelisaBlindTech**.



Through the integration of the solar shading in the closed cavity façade and **PermasteelisaBlindTech**, Permasteelisa is able to control each individual façade element and design the façade as a dynamic filter for thermal, solar and light transmittance.

Using continuous and live inputs, **PermasteelisaBlindTech** system dynamically optimises the façade performance. This ensures thermal, visual and acoustic comfort to the end user, regardless of external environmental conditions.

Permasteelisa offers three different turn-key façade energy & comfort control solutions for its clients, based on the international KNX platform and the connection with other accessories and systems.

# Key Characteristics of the *PermasteelisaBlindTech*

Functionality \ Type	Basic	Advanced	Premium
Up/down & tilt/turn	✓	✓	✓
>1 intermediate stop			✓
Control per façade orientation and/or per floor	✓		
Control per room or per zone		✓	✓
Energy and comfort mode strategy			✓
Basic glare control	✓	✓	✓
Shadow management			✓
Manual override*	✓	✓	✓
Two-way communication with BMS (HVAC)			✓
One-way communication with BMS		✓	✓
Optimized alignment		✓	✓
Stand alone control system	✓	✓	
KNX over IP solution		✓	✓
Lighting management			✓
Security function (fire)	✓	✓	✓

\*Within warranty criteria

## Deliverables

All *PermasteelisaBlindTech* solutions can be customised to the end-users requirements and will be supplied, integrated and commissioned under full responsibility and liability of the Permasteelisa Group.

The delivery of the *PermasteelisaBlindTech* solution will be managed by Permasteelisa, from the design to the final handover, in the same way as the delivery of the façade solution.



## Customers' Benefits

- Holistic design and detailed dynamic assessment methods for the whole building (Capsol - Excellent), resulting in an optimised curtain wall façade system
- Easier compliance with energy regulations, green rating systems and customer comfort requirements despite the high percentage of glass surface and/or the high transparency
- Modular façade energy and comfort control system that is optimised for each project
  - Allows for adaptation to changes (e.g. changes in the building environment, seasonal variations, change of storey layout, etc.)
- One-stop solution
  - A single supplier responsibility for the client
  - Reduced failures and mismatch on-site by eliminating the fragmented supply chain
- Cost and time saving during all phases of the building construction
- Single warranty contract

## Project References

OPPLE INDUSTRIAL PARK, SUZHOU | CHINA



*mfree-S<sup>CCF</sup>* with integrated solar shading control system

Façade	<i>mfree-S<sup>CCF</sup></i>
No of blinds	248
Blinds	Alu venetian blinds 70 mm
Motorization	Electronic motors
Operation of blinds by timer and manual switch	
Fully pre-programmed in Europe and installed in China	

THE INTERNATIONAL QUARTER S5 & S6, LONDON | UNITED KINGDOM



Façade	<i>mfree-S<sup>CCF</sup></i>
No of blinds	1,961
Blinds	Alu venetian blinds 80 mm
Motorization	Electronic motors

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