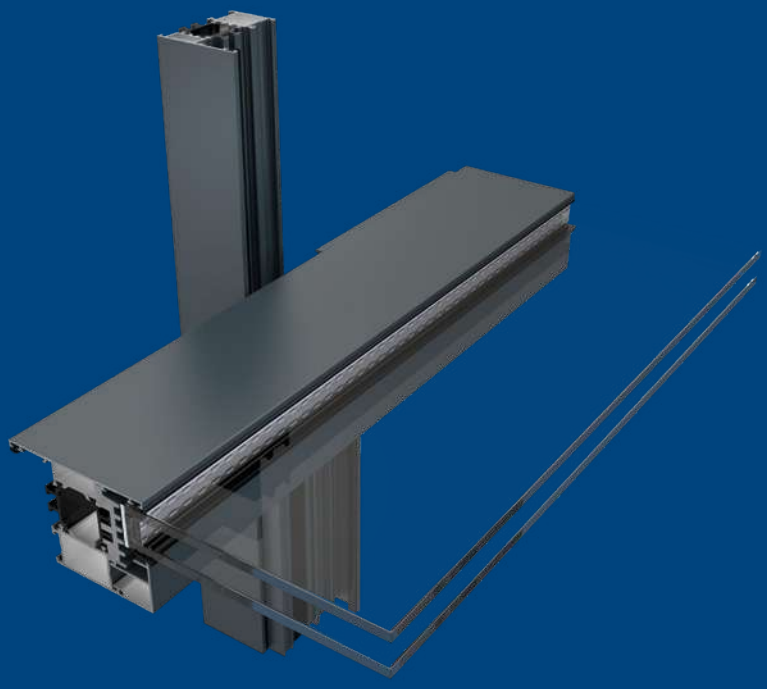
smart
architectural aluminium

EcoFutural

A range of high-performance, high quality doors has been added to the established EcoFutural range of commercial windows, with single and double doors now complementing the tilt and turn, pivot, fixed and open-out casement window options.



EcoFutural Pivot Section

EcoFutural Rebated Door

BES 668681 FM21582 EMS554307 OHS571955 ENMS634370

Project

University of Roehampton Library

Roehampton Lane, Wandsworth, London SW15 5SZ

Architect

Feilden Clegg Bradley Studios

Bath Brewery, Toll Bridge Road, Bath BA1 7DE

Main Contractor

Osborne

18-22 Disney Place, London SE1 1HJ

Product

EcoFutural Doors, Smart Wall & MC Wall

Summary

Completed in August 2017, the award-winning University of Roehampton library is at the heart of the university's 54 acre campus in Wandsworth. Providing a light, modern and spacious environment for the university's students and staff, the striking new library provides over 1,200 study spaces, staff support and work areas over four floors, as well as being home to around 350,000 books.

EcoFutural Rebated Door

EcoFutural Side Hung Casement Window

EcoFutural Pivot Window

EcoFutural Tilt/Turn Window

The new building features a range of Smart architectural systems, including EcoFutural doors, Smart Wall and MC Wall curtain walling. Given that the library has been designed to be a passive building in terms of energy, with highly-insulated facades and high levels of air-tightness, the highly thermally-efficient EcoFutural system was specified for the library's doors, with the striking large-format units a key element of the building's design.

The design of the curtain wall system also created a dramatic façade, featuring concealed transoms which have enabled seamless 'glass-to-glass' joints to be used, as well as accommodating a series of masonry panels which were hung from it.

The versatile, high performance door system has been used to excellent effect to enhance the aesthetics of the new Roehampton library building, and has also been used in a range of new build and refurbishment projects across the UK, including both commercial buildings and residential developments.

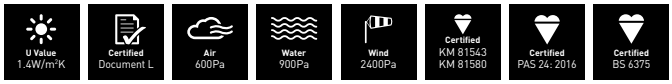
Technical Performance: Window Systems

Application

- Commercial windows and doors suitable for all commercial, retail, residential, public, health care and educational applications.

Features

- Profiles feature an extended polyamide thermal break to enhance thermal performance
- Windows suitable for open in tilt turn, bottom or side hung casements, pivot, fixed and open out casement windows
- Door range includes single and double doors with open-out, open-in, standard and low threshold options
- 316 Marine Grade Stainless Steel Hardware option
- Fabrication is by method of pneumatically crimped corners



Technical Performance

U Value (U Value based on EcoFutural EFi+ specification. Refer to Smart technical fabrication manual)	1.4 W/m²K - using double glazed sealed unit of 1.1 W/m²K 1.1 W/m²K - using triple glazed sealed unit of 0.6 W/m²K
Finish	Single or dual colour, marine quality powder coat as standard
Document L Compliant	

Test Certification

Enhanced Security	PAS24: 2016
BSI Kitemark	KM 81543 KM 81580
Resistance to Weather	BS 6375 Part 1

Design Limitations

Tilt Turn Max o/a Weight	90kg
Pivot Max Weight Horizontal	180kg
Pivot Max Weight Vertical	120kg

Design Limitations and Performance

For sizes outside of these parameters, contact the Smart technical support team

Window Type	Maximum Length (mm)	Maximum Height (mm)	Maximum Perimeter (mm)	Transom/Mullion Length (mm) inc. Frame Maximum	Air Permeability Classification	Watertightness Classification	Resistance to Wind Classification	Exposure Category as given in Table 1 of BS 6375-1:2009
Sash dimensions for windows with approved sash profiles:								
Projecting top hungs	1440	2500	-	-	3	8A	A5	2000
Projecting side hungs	840	1440	-	-	4	E1050	AE2400	2000+
Overall dimensions for windows with approved outer frame profile:								
Fixed	2100	2100	4800	-	4	E1050	AE	2000
Tilt/Turns	1600*	2400	-	-	4	E900	AE	2400
Overall dimensions for windows with approved outer frame & transom/mullion profile:								
Multilights	2400	2100	7680	1345	4	E1050	AE	2000

*Width of the Tilt/Turn Sash must not exceed 1½ times the height.

Technical Performance: Door Systems

Application

- Commercial doors suitable for all commercial, retail, residential, public, health care and educational applications.

Features

- Profiles feature a chambered polyamide thermal break to enhance thermal performance
- Door range includes single and double doors with open-out, open-in, standard and low threshold options
- 316 Marine Grade Stainless Steel Hardware option
- Fabrication is by method of pneumatically crimped corners

Technical Performance

U Value (U Value based on EcoFutural EFi+ specification. Refer to Smart technical fabrication manual)	1.4 W/m²K - using double glazed sealed unit of 1.1 W/m²K 1.1 W/m²K - using triple glazed sealed unit of 0.6 W/m²K
Finish	Single or dual colour, marine quality powder coat as standard

Test Certification

Enhanced Security	PAS24: 2016
BSI Kitemark	KM 530838
Resistance to Weather	BS 6375 Part 1

Single Door Design Limitations

Max Sash Weight	160kg

Double Door Design Limitations

Max Sash Weight	160kg

Design Limitations and Performance

For sizes outside of these parameters, contact the Smart technical support team

Door Type	Maximum Leaf Width (mm)	Maximum Leaf Height (mm)	Air Permeability Classification	Watertightness Classification	Resistance to Wind Classification	Exposure Category as given in Table 1 of BS 6375-1:2009
Single Leaf	1000	2500	4	4A	A3	1200
Double leaf open in low threshold	1000	2500	3	4A	A3	1200
Double leaf open in standard threshold	1000	2500	4	6A	A3	1200
Double leaf open out	1000	2500	4	8A	A3	1200

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