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.
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.
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

Design Limitations and Performance
For sizes outside of these parameters, contact the Smart technical support team.

<table>
<thead>
<tr>
<th>Window Type</th>
<th>Maximum Length (mm)</th>
<th>Maximum Height (mm)</th>
<th>Maximum Perimeter (mm)</th>
<th>Transom/Mullion Length inc. Frame Maximum</th>
<th>Air Permeability Classification</th>
<th>Watertightness Classification</th>
<th>Resistance to Wind Classification</th>
<th>Exposure Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projecting top hungs</td>
<td>1440</td>
<td>2500</td>
<td>-</td>
<td>-</td>
<td>3</td>
<td>8A</td>
<td>A5</td>
<td>2000</td>
</tr>
<tr>
<td>Projecting side hungs</td>
<td>840</td>
<td>1440</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>E1050</td>
<td>AE</td>
<td>2000+</td>
</tr>
</tbody>
</table>

Overall dimensions for windows with approved outer frame profile:
- Fixed: 2100 x 2100 x 4800 - 4 x E1050 AE | 2000
- Tilt/Turns: 1600* x 2400 - 4 x E900 AE | 2400

Overall dimensions for windows with approved outer frame & transom/mullion profile:
- Multilights: 2400 x 2100 x 7680 - 1345 x 4 x E1050 AE | 2000

*Width of the Tilt/Turn Sash must not exceed 1¼ 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

Design Limitations and Performance
For sizes outside of these parameters, contact the Smart technical support team.

<table>
<thead>
<tr>
<th>Door Type</th>
<th>Maximum Leaf Width (mm)</th>
<th>Maximum Leaf Height (mm)</th>
<th>Air Permeability Classification</th>
<th>Watertightness Classification</th>
<th>Resistance to Wind Classification</th>
<th>Exposure Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Leaf</td>
<td>1000</td>
<td>2500</td>
<td>4</td>
<td>4A</td>
<td>A3</td>
<td>1200</td>
</tr>
<tr>
<td>Double leaf open in low threshold</td>
<td>1000</td>
<td>2500</td>
<td>3</td>
<td>4A</td>
<td>A3</td>
<td>1200</td>
</tr>
<tr>
<td>Double leaf open in standard threshold</td>
<td>1000</td>
<td>2500</td>
<td>4</td>
<td>6A</td>
<td>A3</td>
<td>1200</td>
</tr>
<tr>
<td>Double leaf open out</td>
<td>1000</td>
<td>2500</td>
<td>4</td>
<td>8A</td>
<td>A3</td>
<td>1200</td>
</tr>
</tbody>
</table>

Technical Performance

U Value
- 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
- BSI Kitemark: KM 81543
- KM 81580
- Resistance to Weather: BS 6375 Part 1

Single Door Design Limitations
- Max Sash Weight: 160kg

Double Door Design Limitations
- Max Sash Weight: 160kg

BSI Kitemark: KM 81543
KM 81580
Resistance to Weather: BS 6375 Part 1

©Smart Systems Ltd 2018