

# System 10-35 Hi / Hi+

Commercial Door & Framing





# System 10-35 Hi/Hi+

A high-performance, commercial door and framing system, the Thermally Broken System 10-35 Hi/Hi+ has been developed to offer exceptionally low U-values while providing strength and security. These doors have been designed to operate in high traffic locations and are suitable for commercial, health, education or retail applications.

As part of Metal Technology's THERMAL range, this system, in conjunction with the correct glass specification, is designed to aid compliance with the latest thermal requirements of current building regulations.

# Scope

Available as single or double doors in dual or single swing options. Locking can be achieved with single or multi-point locks. Anti-fingertrap and panic gear features are also optional.

# Materials

The aluminium profiles are extruded from aluminium alloy 6060T6, T5 or T4 complying with the recommendations of BS EN 12020-2 / BS EN 755-Parts 1 to 9.

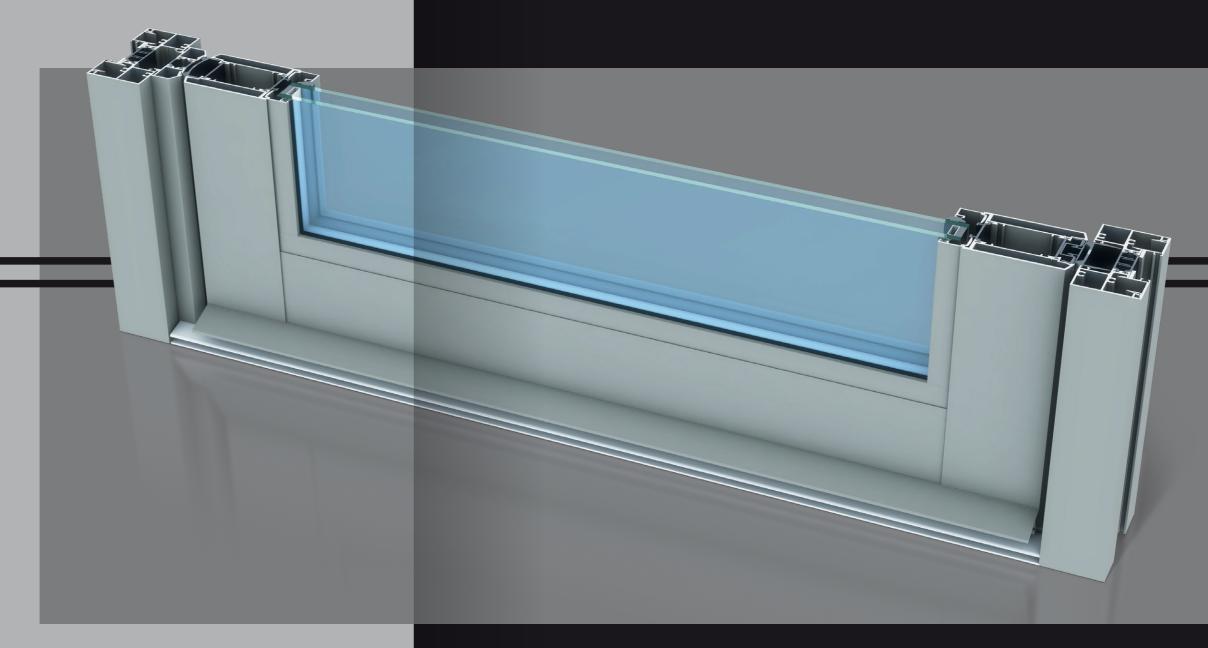
# **Finishes**

The range of sections can be provided in either of the following ranges of finishes:

- 1. Anodised to BS EN 12373-1 or BS 3987
- 2. Powder organic coated to BS EN 12206-1

#### Construction

Door sash members are square cut at 90°, with stiles end milled to suit ironmongery. Sash corners are reinforced with extruded aluminium cleats, and screw fixed with the option of additional tie bar reinforcement. Frame members are square cut at 90°, with corners constructed using either screwported or cleated assembly.



#### **Features**

Door U-values as low as 1.27 W/m²K with double glazing and 0.93 W/m²K with triple glazing

Available in single or dual colour standard RAL finishes

Cycle tested to BS 6375 Part 2

PAS 24 Security tested options to comply with Secured by Design criteria



Glass units 28mm - 44mm

Sash weights up to 100kgs

Sash heights up to 3000mm

LogiKal estimating and production software for manufacturing, glass and U-value calculations

Bespoke tooling and jigs to assist with rapid manufacture



#### Security

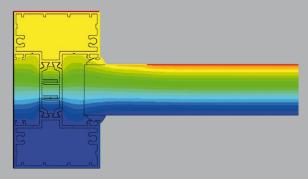
Metal Technology has carried out PAS 24 testing on a full range of their 10-35 door products and framing system. With double and single doors including fan lights and side lights all being tested, in conjunction with many different ironmongery options from 3 point locking to panic gear, designers can specify security doors with confidence.

# Handles

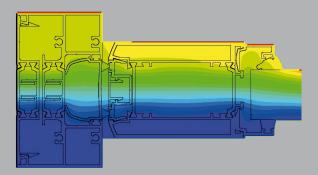
A full range of stainless steel handles are now available from stock. These include various offset bar lengths and D handles which now complement our existing standard pad handle options.



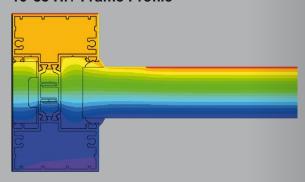
### 10-35 Hi Frame Profile



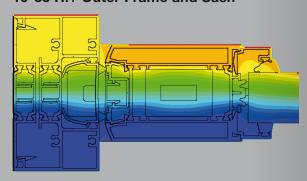
# 10-35 Hi Outer Frame and Sash



### 10-35 Hi+ Frame Profile



## 10-35 Hi+ Outer Frame and Sash



### **U-values**

The polyamide thermal break profiles have been specifically designed to minimise heat transfer across the door profiles, as shown in Table A. This innovative and advanced thermal break technology provides the basis of the 10-35 Hi/Hi+ System. Table B, based on standard fully glazed single/double door configurations and warm edge spacers, illustrates the overall thermal performance of a complete door.

Metal Technology can provide tailored U-value calculations using their dedicated estimating software to calculate overall project average U-values for their full range of systems.

Table A

| U-frame values | Outer frame and sash     | Framing profile          |
|----------------|--------------------------|--------------------------|
| 10-35 Hi       | 2.13W / m <sup>2</sup> K | 2.29W / m <sup>2</sup> K |
| 10-35 Hi+      | 1.51W / m <sup>2</sup> K | 1.96W / m <sup>2</sup> K |

# Table B

| Achievable whole door U-values | Centre pane U-value      |                          |
|--------------------------------|--------------------------|--------------------------|
|                                | 1.0W/m <sup>2</sup> K    | 0.5W/m <sup>2</sup> K    |
| 10-35 Hi single door           | 1.55W / m <sup>2</sup> K | 1.23W / m <sup>2</sup> K |
| 10-35 Hi double door           | 1.49W / m <sup>2</sup> K | 1.15W / m <sup>2</sup> K |
| 10-35 Hi+ single door          | 1.29W / m <sup>2</sup> K | 0.97W / m <sup>2</sup> K |
| 10-35 Hi+ double door          | 1.27W / m <sup>2</sup> K | 0.93W / m <sup>2</sup> K |

**Metal Technology** 

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