

4-20 casement window

ARCHITECT / SPECIFIER SOLUTIONS

RETAIL.HOUSING.COMMERCIAL.PFI. HOTEL + LEISURE.



Metal Technology

Architectural Glazing Solutions

Thermally Enhanced Window, Door and Curtain Wall Systems. **Document L and J** compliant

Dedicated Software for U Value Calculation

U Value reports for Building Control

RIBA CPD approved Document L/J Seminars

RIBA NBS Specifications on all systems

Localised Installer network UK and Ireland

Architectural Support Advisors & Technical Support Team



Metal Technology HQ

Sales:

T: 028 9448 7777

F: 028 9448 7878

Technical Support:

T: 028 9448 1929

Architectural Support:

T: 028 9448 1931

E sales@metaltechnology.com

www.metaltechnology.com

Specification

.....

The Metal Technology Thermally-Broken Commercial Casement Window has been designed to offer the specifier the advantages of polyamide thermal break technology in meeting the latest thermal requirements of the current building regulations.

Introduction

The basic suite has short, long, equal leg and unequal leg sections to accommodate all expected frame options and all applications. Included in the basic suite of profiles are drip rails to divert driving rain. Various other profiles can be designed and incorporated allowing architects to achieve flexible designs. The system can be glazed internally or externally and accommodate double glazing from 24mm through to 32mm units.

As with all Metal Technology systems, the Commercial Casement window system is manufactured to exacting standards enabling economy to be combined with strength to give many years of aesthetic, trouble-free operation.

Thermal Performance

Metal Technology System 4-20, in conjunction with the correct glass specification is designed to comply with the latest thermal requirements of the current building regulations (see separate document on compliance with thermal regulations).

Scope

This specification defines materials, construction, finishes and size limits for the Commercial Casement Window.

Materials

Aluminium profiles are extruded from aluminium alloy 6060T6, T5 or T4 complying with the recommendations of BS EN 12020-2: 2001 / BS EN 755-9: 2001. Polyamide thermal breaks are produced from glass reinforced nylon sections designed to withstand temperatures in excess of 200°C, allowing the sections to be powder coated after thermally breaking.

Finishes

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

1. Anodised to BS1615 or BS3987
2. Powder organic coated to BS6496

Where a different colour is required internally and externally, Metal Technology can accommodate this.

Construction

Frame members are mitre cut at 45°, corners are reinforced with extruded aluminium crimping cleats and corner braces, and a secure joint is formed by pneumatically crimping into the extruded crimping cleat. Alternatively a mechanically fixed cleat can be used. Intermediate mullion and transom bars are square cut shaped and fixed securely to the frame by means of stainless steel screws and fixing cleats, or screwported joined. All frame joints are sealed during construction against entry of water. Extruded weatherstrips and glazing gaskets are provided to resist the ingress of water.

Glazing

Glass is set against co-extruded gaskets externally which are fitted into gasket grooves in the frame upstand. Clip in beads are then fitted to the inside of the frame and held secure by means of colour coded wedges internally. Standard moulded setting/location blocks are provided to clip into the sections.

Installation

Detailed installation instructions are provided which should be strictly followed.

Casement Window Fittings

The sections are designed to suit standard or heavy duty (dependent on size of window) friction hinges or butt hinges and a variety of handle options.

For complete details of maximum / minimum size limits see the size limitation charts in Section 3 of the technical manual.

Performance

Air permeability - BS 6375: Pt 1: 1983 test pressure 600 Pa class iv.

Water tightness - BS 6375: Pt 1: 1983 test pressure 600 Pa.

Wind resistance - BS 6375: Pt 1: 1983 test pressure 2400 Pa.

These levels of performance should be sufficient for any location within the UK. However, should higher levels of performance be required for any reason, Metal Technology's advice should be sought.

Security

System 4-20 has passed BS7950: 1997 incorporating Amendment 1, "Specification for Enhanced Security Performance" as generally accepted on Secure by Design projects. To conform, the window must be fitted with Vector Plus friction hinges, shootbolt locking and be internally beaded.

Summary of Results:

Manipulation meets the requirements of clause 7 A.4

Glazing Removal meets the requirements of clause 7 A.5

Mechanical Loading meets the requirements of clause 7 A.6

Manual Check Test meets the requirements of clause 7 A.7

Development

Our policy is to continually research the market for new and improved products. We must therefore retain the right to amend specifications without prior notice. It is recognised at Metal Technology that in some instances special sections may be required for particular projects. When this occurs it may be possible to produce special sections subject to there being sufficient quantity and adequate time.

