

SPECIFICATION TS46 Casement Window

The AMS Thermstrip TS46 window system offers unique patented architectural design features combined with market leading thermal performance.

This thermally broken casement window system combines polyurethane resin with an multi chamber isolator core which assist in meeting the thermal requirements of the current building regulations.

Introduction

The suite of profiles have short, long, equal leg and unequal leg sections to accommodate all anticipated framing options. Various other profiles can be designed and incorporated allowing architects to achieve flexible project specific designs. The system can be glazed both internally and externally with double glazed units from 24mm, 28mm through to 32mm with fixed pane, side hung and top hung open out configurations.

Thermal Performance

Thermstrip TS46 is designed to offer the specifier excellent aluminium thermal u-frame values in conjunction with the correct glass specification to achieve overall target u-values or equivalent energy ratings on specified projects.

Scope

This specification defines materials, fabrication, paint finishes, and size limitations for casement windows.

Materials

Aluminium profiles are extruded from aluminium alloy 6063 T5 and T6 complying with BS1474 - BS EN 12020-2:2001 / BS EN 755-9:2001.

Paint Finishes

Polyester Powder Coatings

Aluminium profiles can be dual colour polyester powder coated to BS6496. AMS offers in house painting with the following paint suppliers -

- Azko Nobel Interpon D
- Du Pont Alesta
- Beckers Powder

Decoral

Aluminium profiles can be polyester powder coated with a woodgrain effect paint finish to BS6496.

Anodised

Aluminium profiles can be anodised to BS1615 or BS3987.

SPECIFICATION TS46 Casement Window

Fabrication

Frame members shall be mitre cut at 45° and corners are reinforced with extruded aluminium crimping cleats and corner braces and securely fixed in place with a two part adhesive. A secure joint is achieved by means of a pneumatic crimp along with the insertion of a two part epoxy adhesive. Intermediate mullion and transom bars shall be square cut shaped and fixed securely to the frame by means of a new fixing bracket tapped into the polyurethane resin with a stainless steel screw.

All frame joints shall be sealed during construction against entry of water using a suitable small gap sealant.

Glazing

Glass shall be set against co-extruded gaskets externally which are fitted into gasket grooves in the frame and gaskets shall be manufactured BS4255.

Snap in glazing clips shall be utilized to hold glazing beads in place.

Glazing shall be to BS 6262 and Building Regulations Document N.

Installation

AMS offer detailed installation instructions on all systems and these should be followed as per AMS's technical department's recommendations.

Casement Window Fittings

The system is designed to suit heavy duty friction hinges in conjunction with either cockspur handles or an espagnolette all round perimeter multi- locking system.

Opening Vents - Top Hung Open out Casement

Maximum Opening Vent Height:	2200mm
Maximum Opening Vent Width:	1500mm
Maximum Opening Vent Weight:	100KG

Opening Vents - Side Hung Open out Casement

Maximum Opening Vent Height:	1620mm
Maximum Opening Vent Width:	760mm
Maximum Opening Vent Weight:	42KG

Structure:

Section performance requirements must be calculated from site conditions and all loading requirements. All structural profiles shall be designed so as the maximum deflection of any member shall not exceed L/175 of its span and there shall be no evidence of any permanent deformation once the load has been removed. Exposure categories to be determined by BS 6399 Part 2: 1997 or 6375: 2204 for low rise applications.

Thermal Performance:

The TS46 window system can achieve window values up to 1.8 W/m²K. Window and project U-values can be calculated and compliance demonstrated using V6 software or finite element analysis software 'Bisco'. AMS are certified by the BFRC (British Fenestration Rating council) for carrying out thermal simulations and energy rating of window systems and doors. This ensures correct methodology for calculating the thermal performance of window products.

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Performance:

The window system has been fully tested to the following exposure categories and standards. The tests were undertaken at the BBA test laboratory in the UK. Reports are available upon request.

Tested to BS 6375-1 2004.

Air Classification - A4: 600 Pa.

Water Tightness - E1050: 1050 Pa.

Wind Resistance - 5A: 2000 Pa.

Security:

The AMS Thermstrip TS46 / 66 casement window has passed the security test BS7950 incorporating the enhanced security standard which is known as Secured by Design. To conform to this standard the window system must be fitted with Cotswold heavy duty hinge, HD28, self balancing stays, Seigenia Aubi espagnolette all round multi-locking gear with mushroom heads and is also internally glazed.

The AMS thermstrip TS46 / 66 security casement window offers additional market leading performance levels as follows:

Air classification to 1050Pa - class 4

Water tightness - 1050Pa - Class E1050