

Glossary of Terms

Curtain Wall

Air seal

The internal gasket and curtain walling grid must be sealed to stop air and therefore water passing through the system from the outside

Curtain Walling

Aluminium grid incorporating glass and panels of various materials that overlaid the building structure and hangs like a curtain

Deadload

The weight of aluminium and glass that the mullion has to support

Design windload

The pressure of wind acting upon the façade given in Newtons/m². Can be positive or negative

Module

The sums of half the width of each panel either side of a mullion, not mullion centres

Mullion

Vertical bar that must withstand deadload and windload (does not support roofs) which is transferred back to the structure via brackets

Mullion drainage

Each panel within a curtain wall system is drained along the transom and down the mullion

Face cap

Aesthetic cover cap that fits over the pressure plate

Infiltration plug

Shaped EPDM plug that closes off the gap between mullions and transoms

Pressure equalisation

The principle of making a curtain wall system or window weathertight

Pressure plate

Plate that screws to the nose of the mullion and transom to retain the glass or panel

Purlin

Horizontal glazing bars within a slope glazed system

Rafter

Structural bar within a slope glazed system

Rainscreen

Allows air into the glazing cavity whilst keeping out as much water as possible

Simply supported

Mullion fixed at one end taking deadload and windload with a sliding fixing at the other taking windload only. Normally storey height bars

Span

Length of a mullion or transom between fixing points

Structural silicone glazing

Method of retaining glass by bonding the panel to an aluminium frame rather than using mechanical methods of retention i.e. pressure plates

Tandem span

Mullion spanning two storeys. Fixed at one end with a sliding fixing at the other and a sliding fixing at a point in between taking windload only

Transom

Horizontal bar that must withstand deadload and windload (does not support roofs) which is transferred back to the structure via connections to the mullions

Zone drainage

Each panel within a curtain wall system is individually drained at the end of each transom

Windows

Anodising

Controlled oxidisation of the aluminium with the introduction of cobalt if bronze or black colours are required

Bottom hung

Opens in at the head, hinged at the sill

Brace

Flat chevron inserted into the corners

Casement

Open out vent either top hung or side hung, fixed light or a combination

Cleat

Aluminium angle inserted at mitred corners of windows

Composite

Large outer frame divided into smaller panels with muntins. Can incorporate combinations of vents/fixed lights

Coupling mullion

Vertical bar joining two outer frames together

Couping transom

Horizontal bar joining two outer frames together

Espagnolette bolt

Multi-point locking rod for top hung or side hung vents

Fill and debridge

Resin thermal break poured into an extrusion, then part of the extrusion is removed leaving the internal and external aluminium separated by the resin

Folding opener

Holds a top hung vent at the cill when hung on hinges

Friction stays

Mechanism which holds the vent in the open position

Horizontal & vertical sliders

Panels sliding within the outer frame

Horizontal pivot

Vent frame pivots about its horizontal central axis i.e. the bottom pushes out whilst the top comes into the building

"I" Value

One of the strength properties of an extrusion

Lugs

Fixing straps securing the outer frame to the structure

Muntin

A bar that divides outer frames into smaller panels. Can be used horizontally or vertically

Muntin clips

Bracket that fixes muntins to outer frame

Polyamide thermal break

Glass reinforced nylon separating two aluminium extrusions

Polyester powder

Applied to pre-treated aluminium in powder form and then fused to the aluminium in an oven. Over 130 standard colours available

Side hung either open-in or open-out

Outer fixed frame with additional opening frame either hung on hinges down each jamb - open in or out - or friction stays at head and cill - open out only

Thermal break

Separates internal and external aluminium improving the thermal performance

Tiltturn

Vent frame tilts in at the head for ventilation or swings in for cleaning (side hung)

Toe and heel

Method of glazing side hung windows and doors by transferring the weight of glass back to the hinge side

Top hung

Outer fixed frame with additional opening frame either hung on hinges at the head of the window or friction stays down each jamb

Turn lock handle

Allows a tiltturn window to tilt in for ventilation but locks out the side hung mode for safety cleaning

Vertical pivot

Vent frame pivots about its vertical axis i.e. one side pushes out whilst the other comes into the building

Doors

190/350 Doors

Kawneer fabricated, double or single acting doors for heavy and severe traffic use

Bead

Aluminium extrusion with a gasket inserted retaining the glass or panel

Bottom rail

Bottom horizontal rail on a door leaf

Bottom rail weathering

Neoprene wiping seal fitted along the bottom rail

Butt hinges

Can be used with or without exposed closer (may be left as a free swing leaf)

Concealed centre pivots

Used on free swing doors. No closer mechanism

Double action swing door

Opens both ways

Dual moment corner

Fully welded corners (4 welds per corner on 190 and 350 doors). Resists racking of door leaf

Exposed closer

Door closing mechanism face applied to door and frame at head. Single action doors only

Floor Spring

Door closing mechanism set into the floor. For use on double or single action doors

Flush bolts

Normally fitted to edge of stile at the top and bottom to retain the 'slave' leaf

Finger guard

For use with doors with concealed closers. Stops fingers from being trapped between door leaf and frame

Gasket

Typically made of neoprene or EPDM the gaskets fit into beads and compress against the glass

Head rail

Top horizontal rail on a door leaf

Meeting stile

Central vertical members of door leaves on a pair of doors, one stile normally fitted with a lock, the other with flush bolts

Midrail(s)

Divides the door leaf horizontally into smaller panel sizes

Offset pivots

For use with exposed closer or single acting floor spring

Overhead concealed closer

Door closing mechanism concealed in frame above door leaf (door transom). For use on double action doors or double action doors made single action with a locally applied stop

Single action swing door

Opens inward or outwards, not both

Stile

Outer vertical members of a door leaf

Threshold bar

Aluminium plate fitted to floor beneath door leaf

Tie rods

Bars that are fitted to stiles and run through head and bottom rails to provide strength and stop the leaf from racking

Framing

451PT Framing System

Simple extruded aluminium glazing system suitable for ground floor application

Door jamb

Vertical framing member at the side of a door

Door transom

Framing bar directly over a door

End dam

Closes off ends of sill flashing for weathering purposes

Expansion mullion

Male and female two part mullion allowing horizontal movement

Mullion

Vertical framing bar

Screw spline construction

Method of connecting two components using screws into specially extruded grooves

Shear block construction

Method of fabrication fixing shear blocks (brackets) to the mullion, then the transoms to the shear blocks

Shuffle glazing

Method of glazing by moving the glass one way and then the other into the glazing pockets

Cill flashing

Aluminium extrusion onto which the framing sits

Transom

Horizontal framing bar

Transom plate

Flat cover plate on underside of door transom enclosing concealed closer