



**ALBENestra®**



# Performance Casement Window **PCW02**

Designed and tested according to MS832



**LB  
ALUMINIUM  
BERHAD**  
198501006093 (138535-V)

## Product

ALBENestra PCW02

## Typical Technical Features

Nominal Wall Thickness	:	1.35mm
Standard Frame Depth	:	40.00mm
Mullion Depth	:	40.00mm, 80.00mm & 100.00mm
Glazing Gap	:	10.00mm - 34.00mm
Locking System	:	Single-point & Multipoint
Surface Finish	:	Overlap
Hinges	:	Friction Stay
Corner Joints	:	Mitre Joints With Brackets



## Performance Test

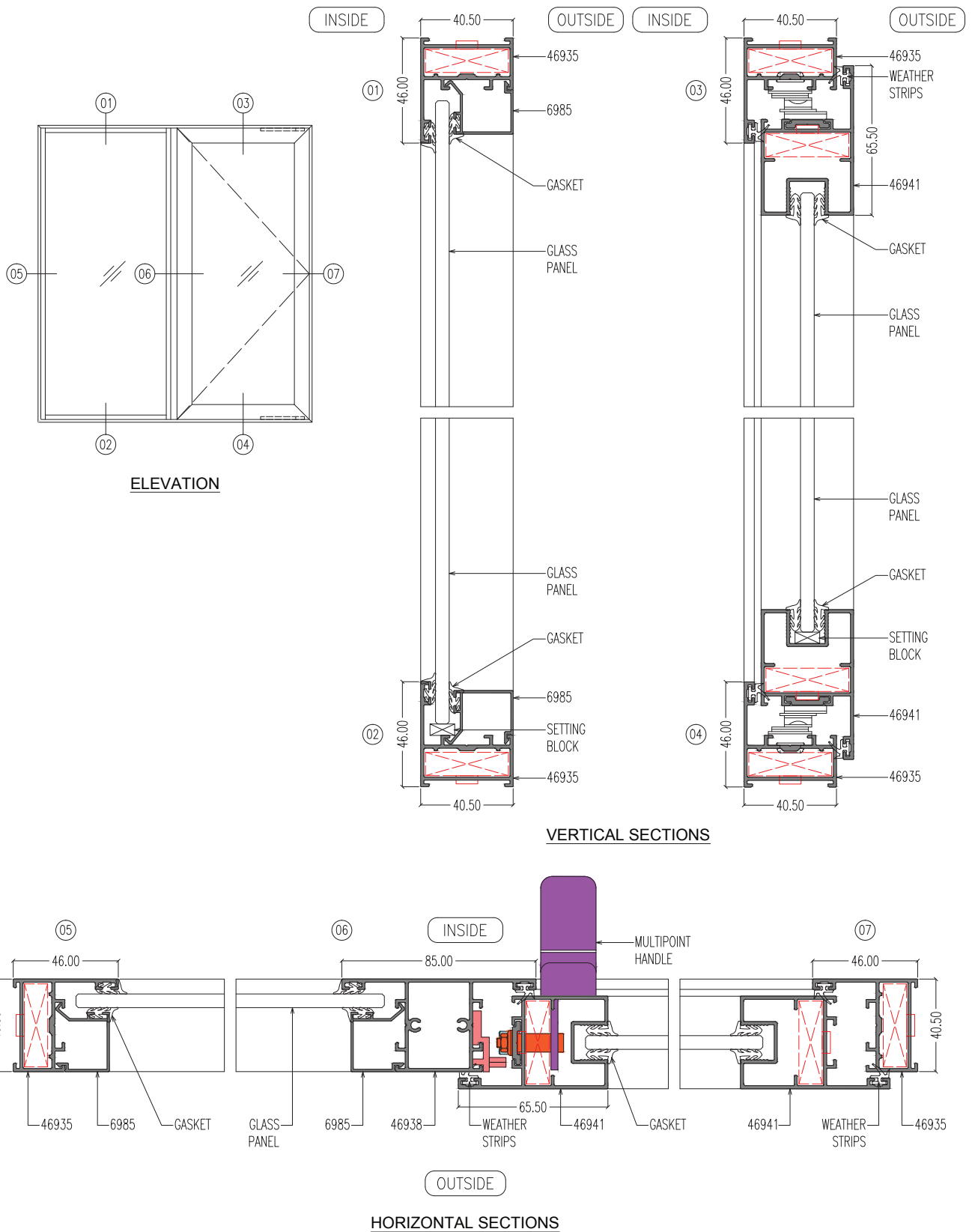
This casement window suite had been tested in compliance to MS 832:2022 performance test procedure for:

1. 1500Pa windload : Passed
2. 300Pa air leakage : Passed
3. 450Pa water infiltration : Passed

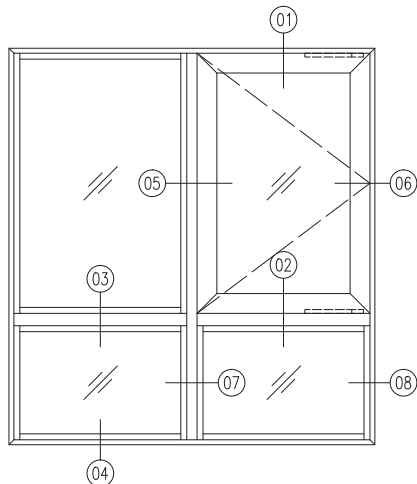
*Note: Test report available upon request.*



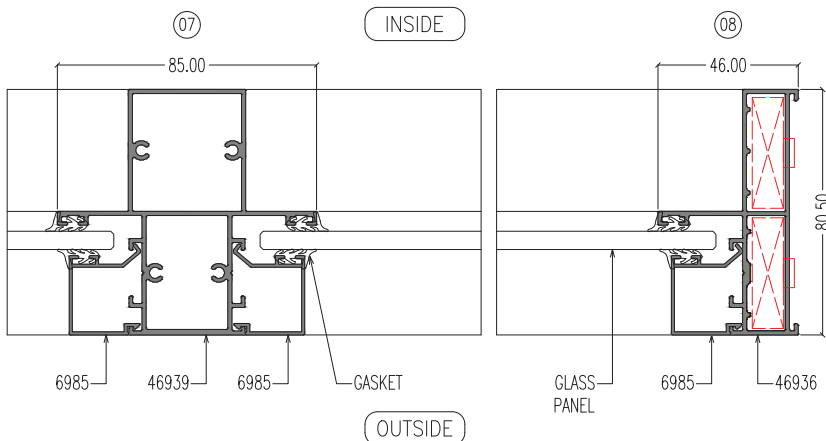
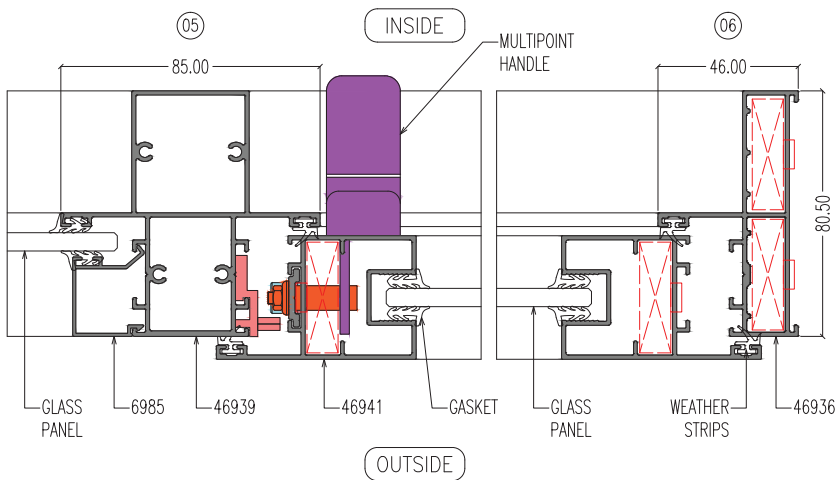
### Typical Assembly Details



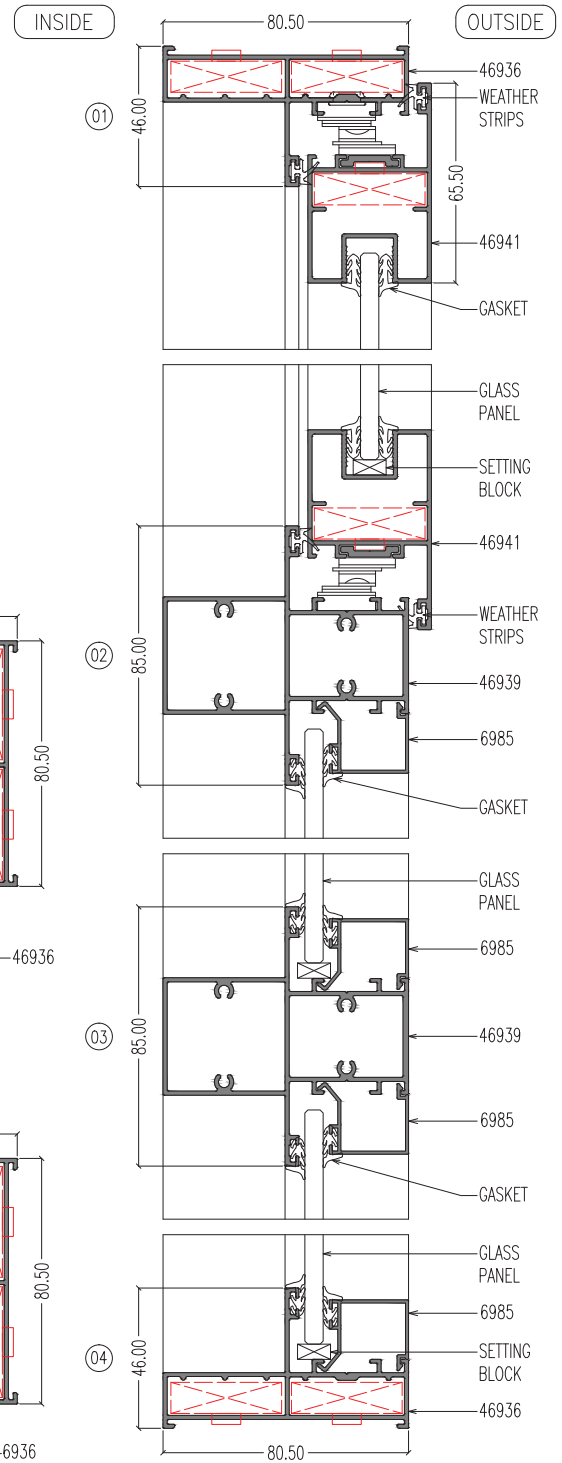
**Typical Assembly Details**



**ELEVATION**

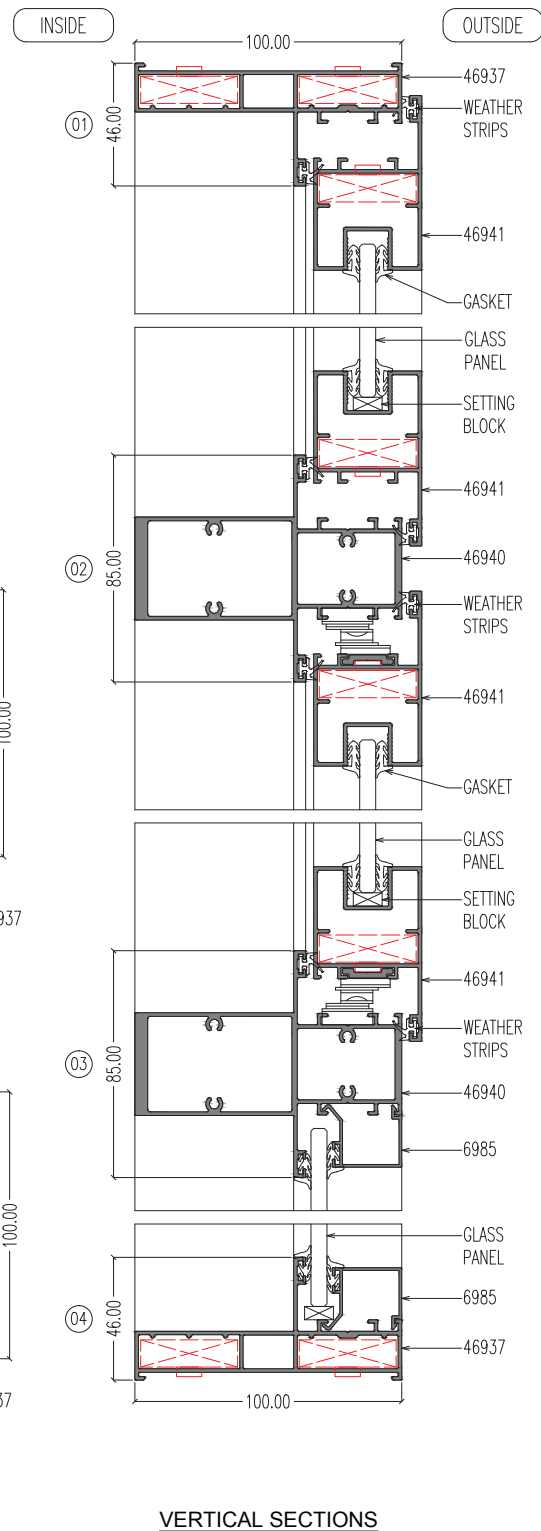
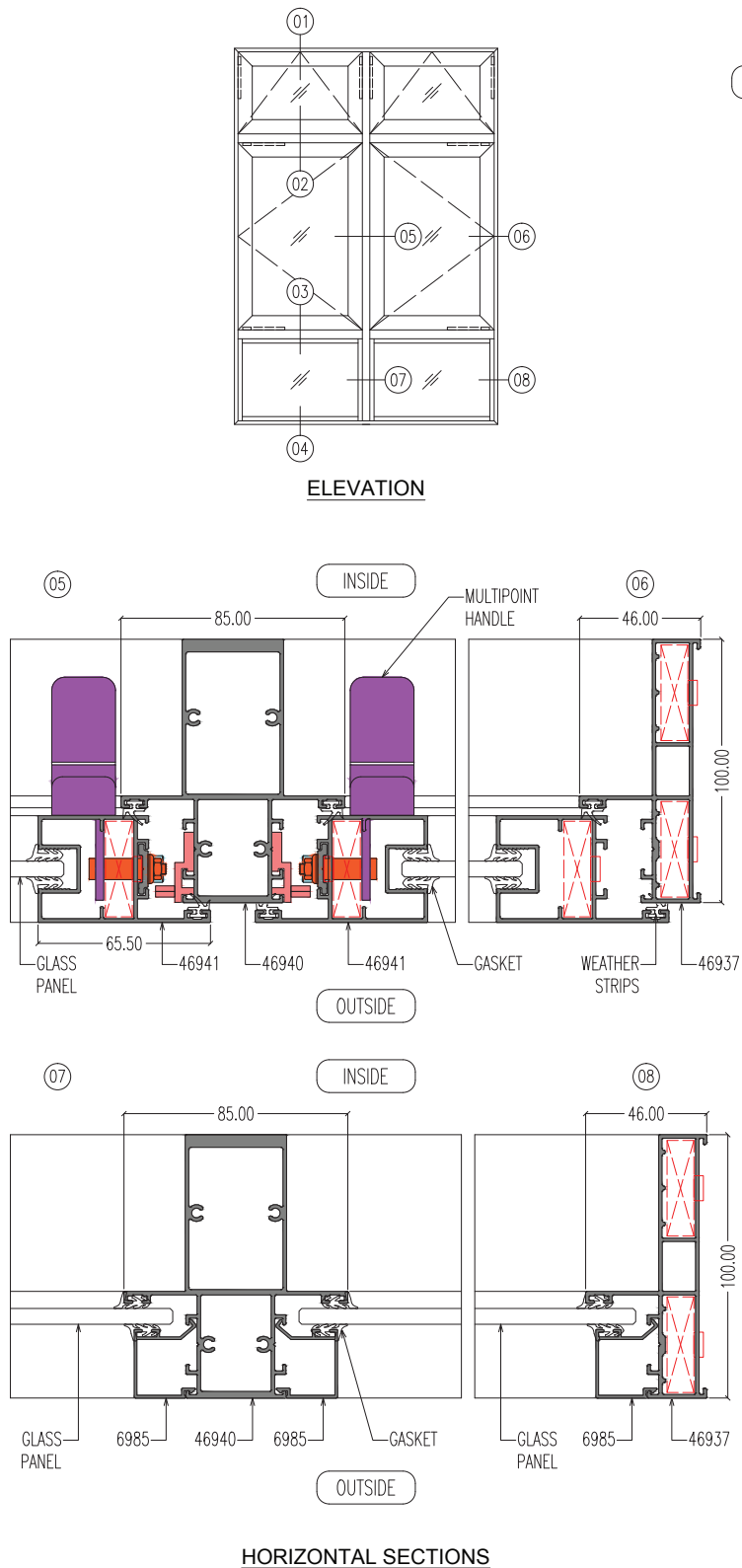


**HORIZONTAL SECTIONS**



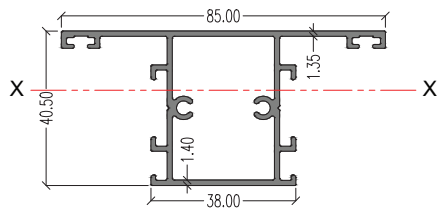
**VERTICAL SECTIONS**

### Typical Assembly Details



## Wind Load Chart

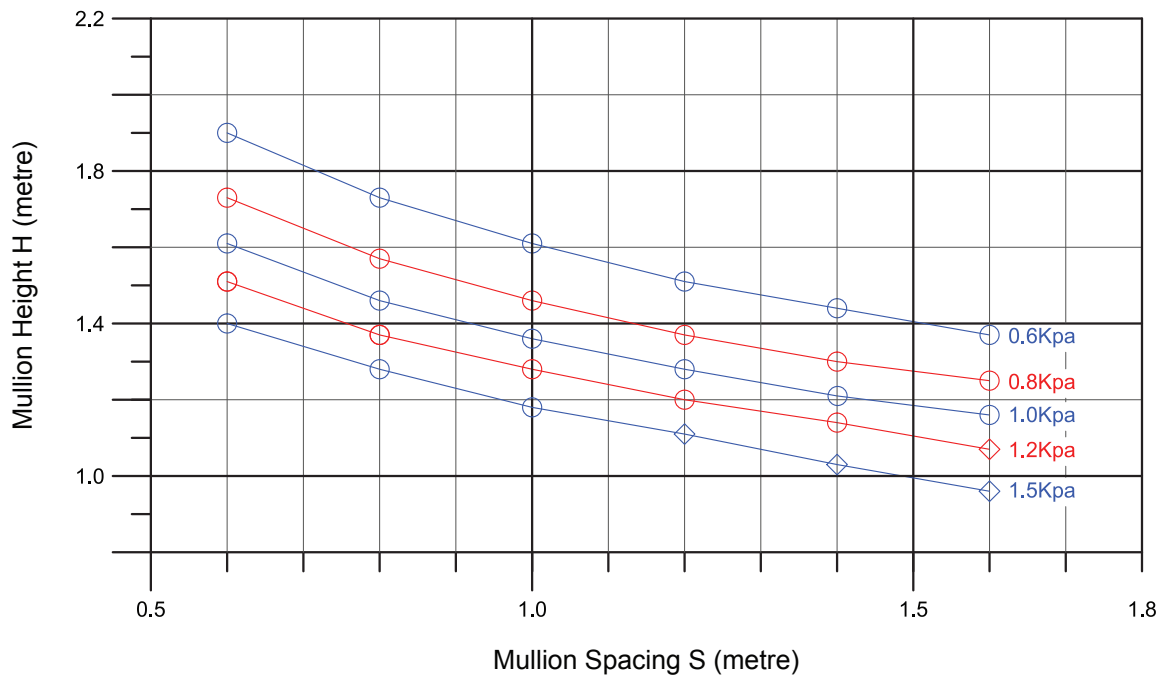
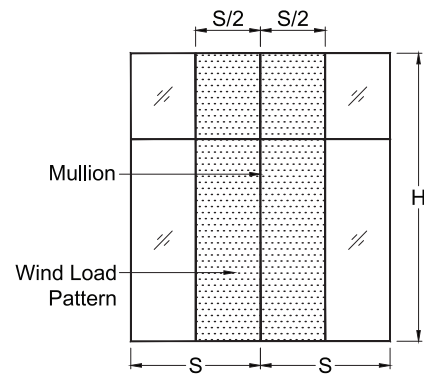
MULLION SECTION	: 46938
Alum. alloy	: 6063-T5
Moment of inertia	$I_{xx}$ : 8.1 cm <sup>4</sup>
Mod. of section	$Z_{xx}$ : 3.3 cm <sup>3</sup>



Note:  
Suffix xx denotes axis perpendicular to wind load

Mod. of elasticity	: $70 \times 10^9$ N/m <sup>2</sup>
Design bend. stress	: $1.25 \times 67^6$ N/m <sup>2</sup>
Deflection limit	: $\text{Span}/_{175}$ , up to max. 20mm
Nature of anchor	: Simply supported at both ends

Typical configuration of window:



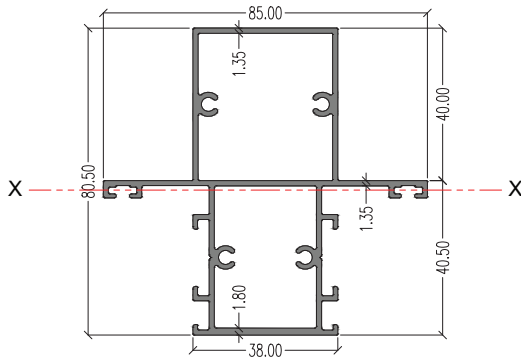
Note:

- Deflection limit governs
- ◇ Design bending stress governs

- Buckling has not been taken into account in this chart  
 - This windload chart is solely for reference only

## Wind Load Chart

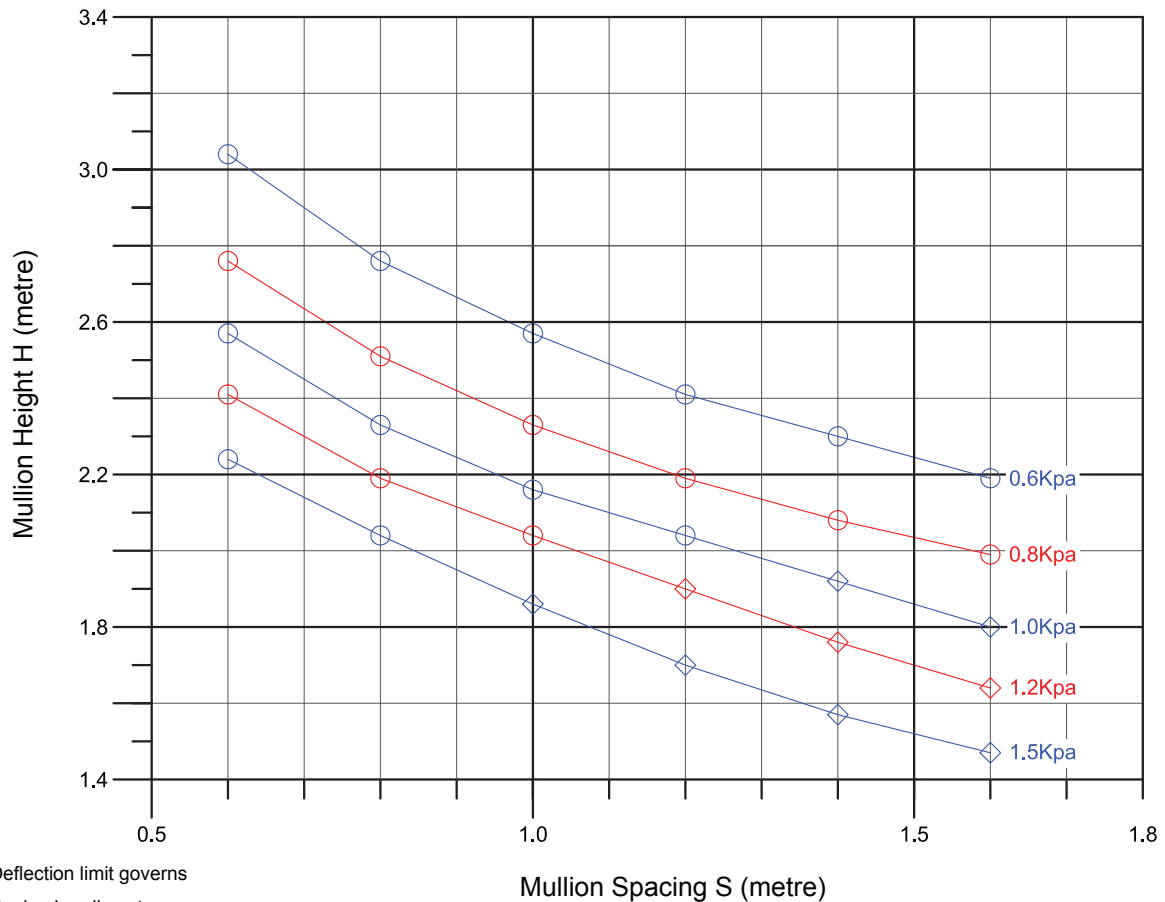
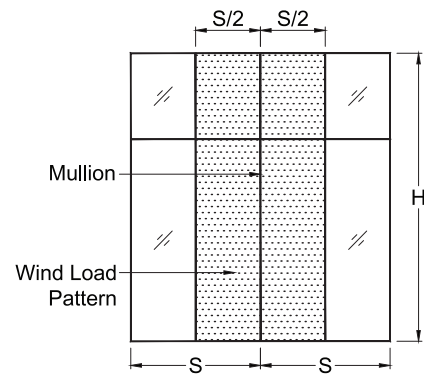
**MULLION SECTION** : 46939  
 Alum. alloy : 6063-T5  
 Moment of inertia  $I_{xx}$  : 33.0 cm<sup>4</sup>  
 Mod. of section  $Z_{xx}$  : 7.7 cm<sup>3</sup>



Note:  
 Suffix xx denotes axis perpendicular to wind load

Mod. of elasticity :  $70 \times 10^9$  N/m<sup>2</sup>  
 Design bend. stress :  $1.25 \times 67^6$  N/m<sup>2</sup>  
 Deflection limit :  $\text{Span}/_{175}$ , up to max. 20mm  
 Nature of anchor : Simply supported at both ends

Typical configuration of window:



Note:

- Deflection limit governs
- ◇ Design bending stress governs

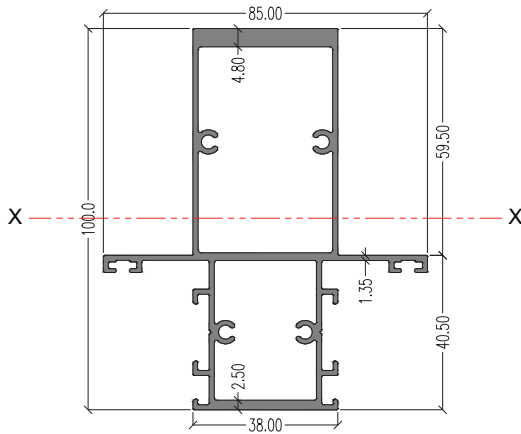
:- Buckling has not been taken into account in this chart

:- This windload chart is solely for reference only



## Wind Load Chart

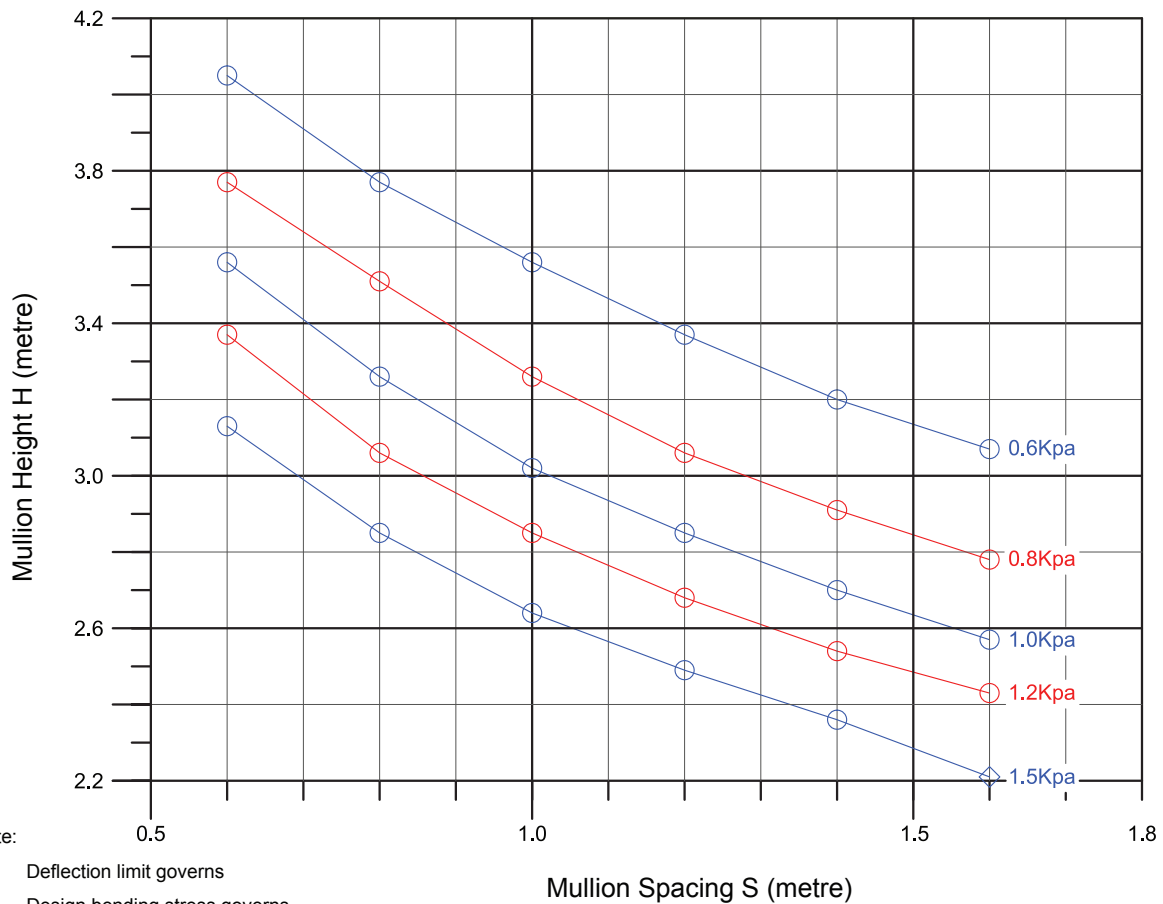
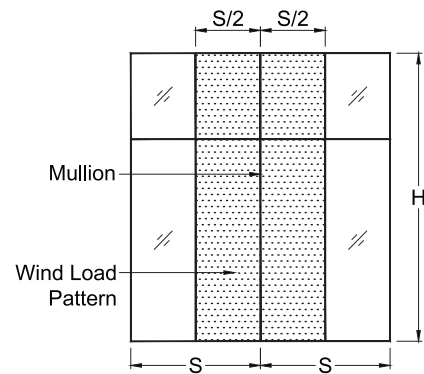
**MULLION SECTION** : 46940  
 Alum. alloy : 6063-T5  
 Moment of inertia  $I_{xx}$  : 89.9 cm<sup>4</sup>  
 Mod. of section  $Z_{xx}$  : 17.4 cm<sup>3</sup>



Note:  
 Suffix xx denotes axis perpendicular to wind load

Mod. of elasticity :  $70 \times 10^9$  N/m<sup>2</sup>  
 Design bend. stress :  $1.25 \times 67^6$  N/m<sup>2</sup>  
 Deflection limit :  $\text{Span}/175$ , up to max. 20mm  
 Nature of anchor : Simply supported at both ends

Typical configuration of window:



Note:

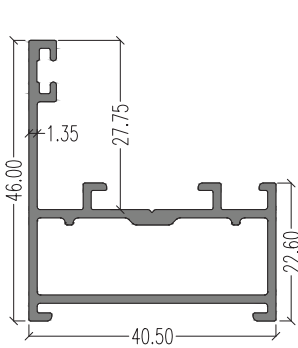
- Deflection limit governs
- ◇ Design bending stress governs

- Buckling has not been taken into account in this chart

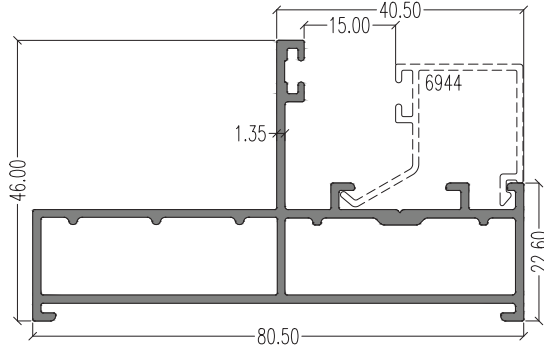
- This windload chart is solely for reference only



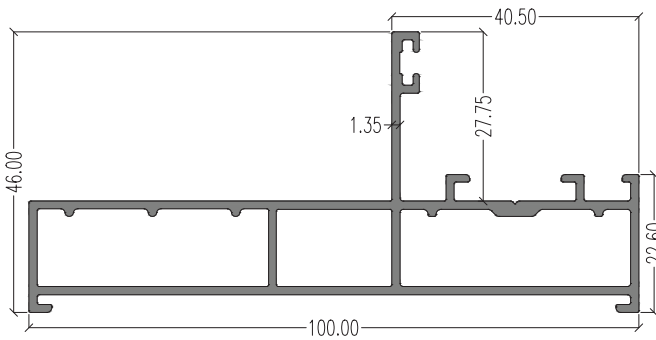
### Sectional Details



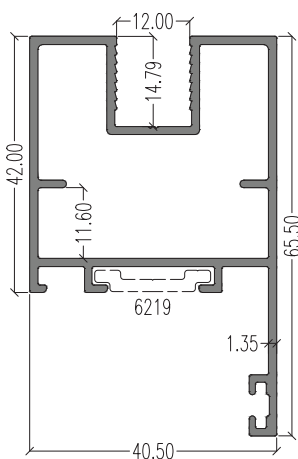
**46935 (Outer)**  
LW : 0.665 kg/m  
AP : 241.18 mm



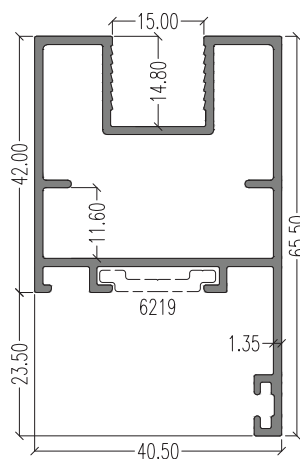
**46936 (Outer)**  
LW : 1.004 kg/m  
AP : 320.96 mm



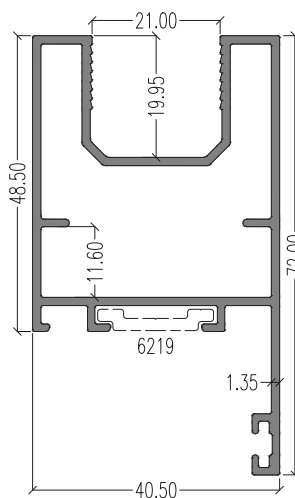
**46937 (Outer)**  
LW : 1.194 kg/m  
AP : 359.95 mm



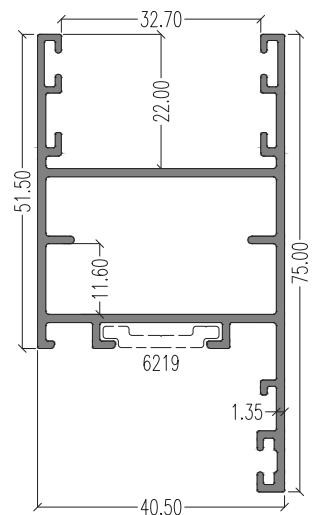
**46983 (Inner)**  
LW : 0.896 kg/m  
AP : 299.52 mm



**46941 (Inner)**  
LW : 0.897 kg/m  
AP : 300.85 mm

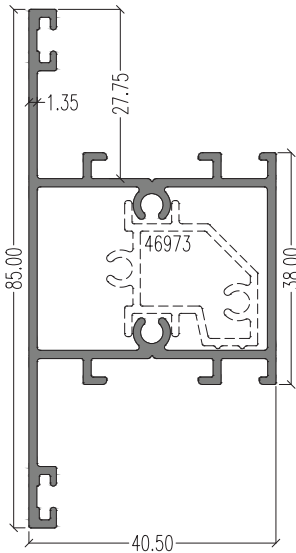


**46970 (Inner)**  
LW : 0.975 kg/m  
AP : 319.32 mm



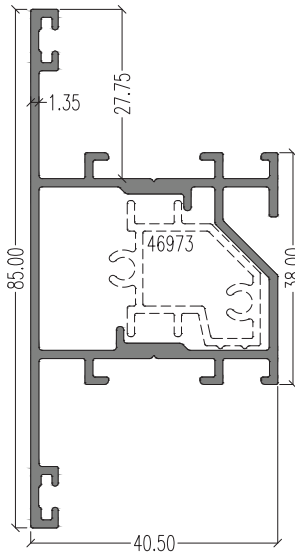
**46971 (Inner)**  
LW : 0.935 kg/m  
AP : 388.34 mm

### Sectional Details



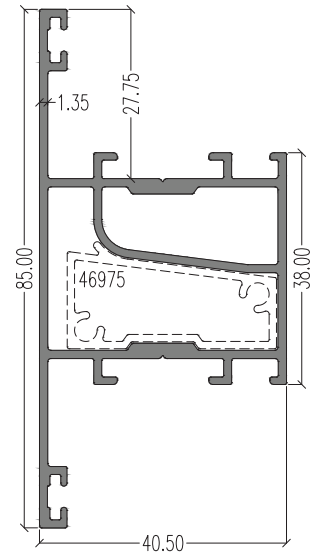
**46938** (Mullion)

LW : 0.988 kg/m  
AP : 359.07 mm  
Ixx : 14.82 cm<sup>4</sup>  
Iyy : 8.159 cm<sup>4</sup>



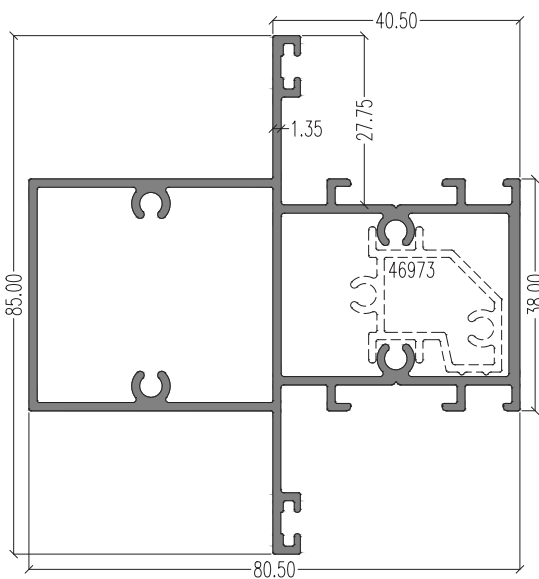
**46972** (Transom)

LW : 1.071 kg/m  
AP : 380.47 mm  
Ixx : 15.02 cm<sup>4</sup>  
Iyy : 8.121 cm<sup>4</sup>



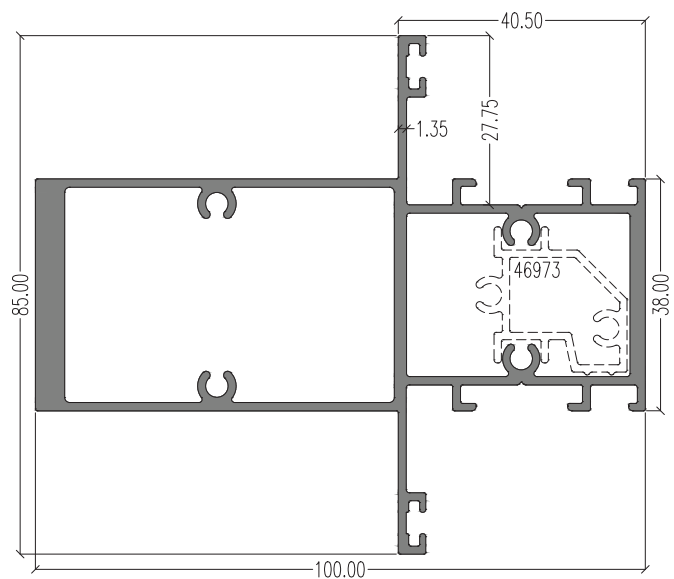
**46974** (Transom)

LW : 1.113 kg/m  
AP : 359.07 mm  
Ixx : 14.94 cm<sup>4</sup>  
Iyy : 8.753 cm<sup>4</sup>



**46939** (Mullion)

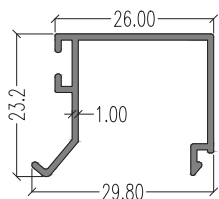
LW : 1.524 kg/m  
AP : 438.85 mm  
Ixx : 19.73 cm<sup>4</sup>  
Iyy : 32.89 cm<sup>4</sup>



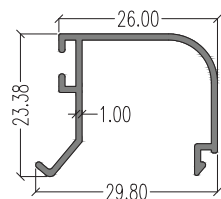
**46940** (Mullion)

LW : 2.112 kg/m  
AP : 477.85 mm  
Ixx : 23.13 cm<sup>4</sup>  
Iyy : 89.37 cm<sup>4</sup>

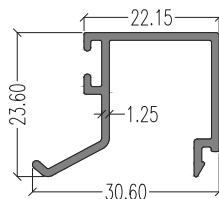
## Sectional Details

**10mm Gap**


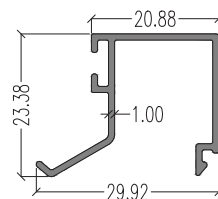
**6985** (Beading)  
LW : 0.231 kg/m  
AP : 169.79 mm

**10mm Gap**


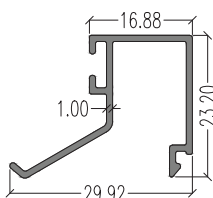
**6986** (Beading)  
LW : 0.233 kg/m  
AP : 163.56 mm

**14mm Gap**


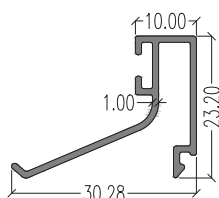
**6996** (Beading)  
LW : 0.286 kg/m  
AP : 168.80 mm

**15mm Gap**


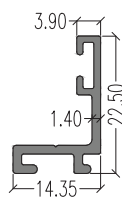
**6944** (Beading)  
LW : 0.228 kg/m  
AP : 166.07 mm

**19mm Gap**


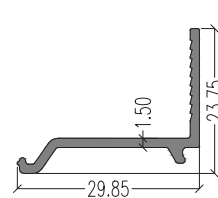
**46902** (Beading)  
LW : 0.224 kg/m  
AP : 162.69 mm

**26mm Gap**


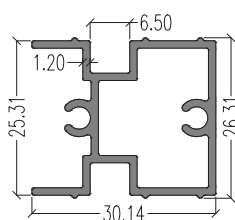
**6997** (Beading)  
LW : 0.219 kg/m  
AP : 159.37 mm

**32mm Gap**


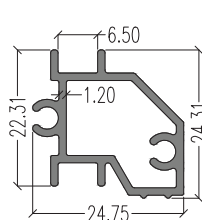
**6218** (Beading)  
LW : 0.179 kg/m  
AP : 101.90 mm

**34mm Gap**


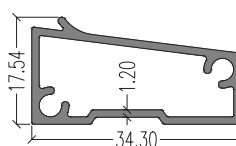
**46910** (Beading)  
LW : 0.213 kg/m  
AP : 108.69 mm



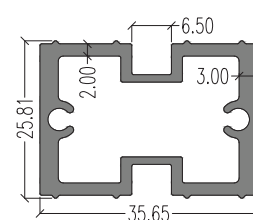
**46943** (Bracket)  
LW : 0.450 kg/m  
AP : 166.62 mm  
Ixx : 1.286 cm<sup>4</sup>  
Iyy : 1.395 cm<sup>4</sup>  
(For 46938, 46939 & 46940)



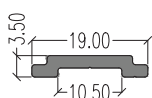
**46973** (Bracket)  
LW : 0.350 kg/m  
AP : 122.61 mm  
Ixx : 0.596 cm<sup>4</sup>  
Iyy : 0.791 cm<sup>4</sup>



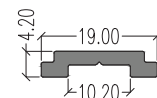
**46975** (Bracket)  
LW : 0.354 kg/m  
AP : 100.81 mm  
Ixx : 0.406 cm<sup>4</sup>  
Iyy : 1.884 cm<sup>4</sup>  
(For 46974)



**46942** (Stiffener)  
LW : 0.798 kg/m  
AP : 142.55 mm  
Ixx : 2.313 cm<sup>4</sup>  
Iyy : 4.952 cm<sup>4</sup>



**6219**  
LW : 0.117 kg/m  
AP : 45.58 mm  
(For Powder Coated & PVDF Finish Only)



**6987**  
LW : 0.140 kg/m  
AP : 49.24 mm  
(For Anodised Finish Only)

## Accessories

### Handles



CH100 Single-Point



CH200 Single-Point



MPH3903 Multi-Point  
Single Fork



MPH3707A Multi-Point  
Single/Double Fork



MPH3701A Multi-Point  
Single/Double Fork

### Catches



MP930

### Latch Bolt & Keeper



MP960



MP962

### Friction Stay



12", 14", 16", 18", 20" SS304  
Top Hung



8", 12", 16" SS304  
Side Hung

### Push Rod



MP943KS (L30mm)

### Weather Strip



PLG5904  
Suntoprene  
(100m / roll)

### Restrictor Bar



CB8, CB12



CB04

### Lockcam



MP950  
(10mm, 12mm)

### Corner Brackets



MP590A



MP90



**LB  
ALUMINIUM  
BERHAD**  
198501006093 (138535-V)

Now available at:



### HEAD OFFICE & FACTORY

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