ALUMINIUM DOORS, WINDOWS & STRUCTURAL GLAZING POLICY

The aim of this release of Façade policy addresses guidelines recommended for the Sliding Doors/Windows, Casement windows & Structural glazing across project segments:

- Casa Residential
- Aspirational Residential
- Hi-end Residential
- Luxury Residential
- Excellus / Supremus /iThink Office
- Experia Retail
- Boulevard Retail

Note: Any sliding window having height greater than 1.8 is referred to as a sliding door.

The main factors contributing to the Design of the Sliding Doors/Windows, Casement windows & Structural Glazing are as mentioned in **Table- 1** below:

TABLE - 1 - FACTORS FOR DESIGN OF SLIDING WINDOW/DOORS, CASEMENT WINDOW

SL NO	FACTORS	DEPENDENT ON	REMARKS
1	**WIND LOAD**	Height of Building, Environment	Refer Table - 2
2	**SIZE OF OPENING**	Windows or Doors	
3	**TYPE OF WINDOW**	Sliding Door , Sliding Window, Casement Window, Bay Window	
4	**LOCATION**	Window on exterior wall with or without Chajja / Roof over, Box window, Sliding Door with Deck etc	
5	**WATER INFILTRATION**	Performance, Profile selection, No of seals	
6	**AIR INFILTRATION**	Indoor Air Quality, Seals	
7	**PERFORMANCE - THERMAL / ACOUSTICS / SERVICEABILITY**	Indoor Comforts, Durability etc	
8	**PROJECT SEGMENT**	Architectural Choice, Accessories, Sight lines	

The Floor Heights & Window openings recommended for various project segments are as mentioned in **Table – 2** below:

TABLE -2- Key Dimensions for various project typologies: (all dimensions in mm)

SL NO	PROJECT SEGMENT	SLIDING WINDOW / DOOR - CASEMENT WINDOW			GLAZED PANELS			REMARKS
		FLOOR HEIGHT	LINTEL HEIGHT	Max. WIDTH	WIDTH OF PANELS	FLOOR TO FLOOR HEIGHT	VISION PANEL HEIGHT	
1	CASA RESIDENTIAL	3000	2100	4000	NA	NA	NA	LINTEL BEAM AT 2100 ABOVE RAW SLAB LEVEL
2	ASPIRATIONAL RESIDENTIAL	3150	2100	4000	NA	NA	NA	

3	HIGH END RESIDENTIAL	3450 - 3600	2400	6000	NA	NA	NA	LINTEL BEAM AT 2400 ABOVE RAW SLAB LEVEL
4	LUXURY RESIDENTIAL	3600	2400	6000	NA	NA	NA	
5	EXCELLUS / SUPREMUS / I THINK OFFICES	NA	NA	NA	1200 - 1500	4050	2100 -2400	
6	EXPERIA RETAIL	NA	NA	NA	1200 - 2000	4200 OR GREATER (IF PERMISSIBLE) FOR GF(LG/UG), 1ST & 2ND. For FLOORS ABOVE second, 4200	FTF	
7	BOULEVARD RETAIL	NA	NA	NA	1200 - 1500	3600 IF STANDALONE; SAME FTF AS BUILDING TYPICAL FLOOR IF AT THE BASE OF BUILDING. ALL INTERNAL BEAMS, DOOR OPENINGTOP & WINDOW OPENING TOP (IF APPLICABLE) TO BE STANDARDIZED @ 2400 ABOVE RAW SLAB LEVEL		LINTEL BEAM AT 2400 ABOVE RAW SLAB LEVEL

(please note that above limits are the maximum and can be decreased in increment of 150 mm).

DESIGN OF SLIDING DOORS / WINDOWS & CASEMENT WINDOWS:

The design of Sliding Door/windows & casement windows shall be based on the height of the building & wind pressures as mentioned in **Table-3** below:

TABLE - 3 BASIS FOR DESIGN SLIDING DOORS / WINDOWS / CASEMENT WINDOWS

SL NO	HEIGHT ABOVE GROUND OF Floors concerned	DESIGN WIND PRESSURE IN Kpa	DESIGN
1	0 TO 50 M	1.5	IN-HOUSE REFER TABLE - 4
2	51 TO 100 M	2	IN-HOUSE REFER TABLE - 4
3	101 TO 150 M	2.6	CUSTOM DESIGN BY FAÇADE CONSULTANTS
4	151 & ABOVE	AS PER WIND TUNNEL REPORT	CUSTOM DESIGN BY FAÇADE CONSULTANTS

The Aluminium Profiles, Glass & Hardware recommended are in general as mentioned in **Table – 4**.

TABLE - 4 WINDOW PROFILES / SECTION MATRIX

HEIGHT OF BUILDING 0 M TO 50 M - 1.5 Kpa												HEIGHT OF BUILDING 51M TO 100 M - 2 Kpa									
ID MARK	CONFIGUARATION	SIZE		Aluminium Series For Frame Jindal Code No. & Wt Kg/Mtr				Aluminium Series For Shutter Jindal Code No. & Wt Kg/Mtr			Glass	Aluminium Series For Frame Jindal Code No. & Wt Kg/Mtr				Aluminium Series For Shutter Jindal Code No. & Wt Kg/Mtr			Glass	Coating	Hardware etc
		W	H	ALUMINIUM SECTION SERIES	Bottom	Top	Side	Bearing Bottom & Top	Interlock Section	Handle Section		ALUMINIUM SECTION SERIES	Bottom	Top	Side	Bearing Bottom & Top	Interlock Section	Handle Section			
SLIDING DOORS																					
SD1	3 TRACK 6 SHUTTERS	6000	2100 TO 2400	30 SERIES JINDAL OR 35X75 SERIES GEETA	20928 (2.032 KG/M) 124 X 51 X 1.5 THK	20837 (1.197 KG/M) 124 X 41 X 1.5 THK	20837 (1.197 KG/M) 124 X 41 X 1.5 THK	20772 (0.948 KG/M) 71 X 30 X 1.5 THK	21009 (0.964 KG/M) 65 X 30 X 1.5 THK	21008 (0.762 KG/M) 65 X 30 X 1.5 THK	SINGLE GLASS 8MM THK TOUGHENED GLASS TO DESIGN	CUSTOM DESIGN	CUSTOM DESIGN 170 MM X 40 MM X 2 MM THK HOLLOW SECTION SS TIP TRACKS			CUSTOM DESIGN 75 MM X 50 MM X 1.8 MM THK HOLLOW SECTION WITH STIFFNERS			SINGLE GLASS 8MM THK TOUGHENED GLASS TO DESIGN	JOTUN or AKZONBLE Brand 50 micron Colour Powder Coating as per the approved shade	Lock: Alualpha FLUSH MOUNTED TONGUE LOCK WITH SOCKET ROLLER Bearing: NSK JAPAN / GIESSE MAKE OF CAPACITY WT OF SHUTTER Woolpile: Imported EPDM Gaskets SS screws
SD2	4 TRACK 4 SHUTTERS	4000	2400	30 SERIES JINDAL OR 27 SERIES GEETA	21198 (3.197 KG/M) 164.9 X 51 X 2MM THK	21204 (1.694 KG/M) 164.9 X 41 X 1.6 THK	21204 (1.694 KG/M) 164.9 X 41 X 1.6 THK	20772 (0.948 KG/M) 71 X 30 X 1.5 THK	21009 (0.964 KG/M) 65 X 30 X 1.5 THK	21008 (0.762 KG/M) 65 X 30 X 1.5 THK	SINGLE GLASS 8MM THK TOUGHENED GLASS TO DESIGN	CUSTOM DESIGN	CUSTOM DESIGN 210 MM X 55 MM X 2 MM THK HOLLOW SECTION SS TIP TRACKS			CUSTOM DESIGN 75 MM X 50 MM X 1.8 MM THK HOLLOW SECTION WITH STIFFNERS			SINGLE GLASS 8MM THK TOUGHENED GLASS TO DESIGN	JOTUN or AKZONBLE Brand 50 micron Colour Powder Coating as per the approved shade	Lock: Alualpha FLUSH MOUNTED TONGUE LOCK WITH SOCKET ROLLER Bearing: NSK JAPAN OF CAPACITY WT OF SHUTTER Woolpile: Imported EPDM Gaskets SS screws
SD3	3 TRACK 3 SHUTTERS	3000 TO 3500	2400	30 SERIES JINDAL OR 35X75 SERIES GEETA	21198 (3.197 KG/M) 164.9 X 51 X 2MM THK	21204 (1.694 KG/M) 164.9 X 41 X 1.6 THK	21204 (1.694 KG/M) 164.9 X 41 X 1.6 THK	20772 (0.948 KG/M) 71 X 30 X 1.5 THK	21009 (0.964 KG/M) 65 X 30 X 1.5 THK	21008 (0.762 KG/M) 65 X 30 X 1.5 THK	SINGLE GLASS 8MM THK TOUGHENED GLASS TO DESIGN	CUSTOM DESIGN	CUSTOM DESIGN 170 MM X 40 MM X 2 MM THK HOLLOW SECTION SS TIP TRACKS			CUSTOM DESIGN 75 MM X 50 MM X 1.8 MM THK HOLLOW SECTION WITH STIFFNERS			SINGLE GLASS 8MM THK TOUGHENED GLASS TO DESIGN	JOTUN or AKZONBLE Brand 50 micron Colour Powder Coating as per the approved shade	Lock: Alualpha FLUSH MOUNTED TONGUE LOCK WITH SOCKET ROLLER Bearing: NSK JAPAN OF CAPACITY WT OF SHUTTER Woolpile: Imported EPDM Gaskets SS screws
SD4	3 TRACK 3 SHUTTERS	3000	2100	25 SERIES JINDAL OR 25 SERIES GEETA	20673 (1.619 KG/M) 116 X 40 X 1.3 THK	20798 (1.16 KG/M) 116 X 25 X 1.35 THK	20798 (1.16 KG/M) 116 X 25 X 1.35 THK	20842 (0.781 KG/M) 60 X 25 X 1.45 THK	21091 (0.776 KG/M) 50 X 25 X 1.48 THK	21056 (0.717 KG/M) 50 X 25 X 1.51 THK	SINGLE GLASS 6MM THK TOUGHENED GLASS TO DESIGN	30 SERIES JINDAL OR 35X75 SERIES GEETA	20928 (2.032 KG/M) 124 X 51 X 1.5 THK	20837 (1.197 KG/M) 124 X 41 X 1.5 THK	20837 (1.197 KG/M) 124 X 41 X 1.5 THK	20772 (0.948 KG/M) 71 X 30 X 1.5 THK	21009 (0.964 KG/M) 65 X 30 X 1.5 THK	21008 (0.762 KG/M) 65 X 30 X 1.5 THK	SINGLE GLASS 8MM THK TOUGHENED GLASS TO DESIGN	JOTUN or AKZONBLE Brand 50 micron Colour Powder Coating as per the approved shade	Lock: Alualpha FLUSH MOUNTED TONGUE LOCK WITH SOCKET ROLLER Bearing: NSK JAPAN OF CAPACITY WT OF SHUTTER Woolpile: Imported EPDM Gaskets SS screws
SD5	2 TRACK 2 SHUTTERS	2000	2100	25 SERIES JINDAL OR 25 SERIES GEETA	20676 (1.073 KG/M) 75 X 45.5 X 1.25 THK	20634 (0.619 KG/M) 75 X 25.4 X 1.3 THK	20634 (0.619 KG/M) 75 X 25.4 X 1.3 THK	20842 (0.781 KG/M) 60 X 25 X 1.45 THK	21091 (0.776 KG/M) 50 X 25 X 1.48 THK	21056 (0.717 KG/M) 50 X 25 X 1.51 THK	SINGLE GLASS 6MM THK TOUGHENED GLASS TO DESIGN	30 SERIES JINDAL OR 35X75 SERIES GEETA	21217 (1.502 KG/M) 83 X 52 X 1.5 THK	20835 (0.904 KG/M) 83 X 41 X 1.5 THK	20835 (0.904 KG/M) 83 X 41 X 1.5 THK	20772 (0.948 KG/M) 71 X 30 X 1.5 THK	21009 (0.964 KG/M) 65 X 30 X 1.5 THK	21008 (0.762 KG/M) 65 X 30 X 1.5 THK	SINGLE GLASS 8MM THK TOUGHENED GLASS TO DESIGN	JOTUN or AKZONBLE Brand 50 micron Colour Powder Coating as per the approved shade	Lock: Alualpha FLUSH MOUNTED TONGUE LOCK WITH SOCKET ROLLER Bearing: NSK JAPAN OF CAPACITY WT OF SHUTTER Woolpile: Imported EPDM Gaskets SS screws
SD6	2 TRACK 2 SHUTTERS	2000	2400	30 SERIES JINDAL OR 35X75 SERIES GEETA	21217 (1.502 KG/M) 83 X 52 X 1.5 THK	20835 (0.904 KG/M) 83 X 41 X 1.5 THK	20835 (0.904 KG/M) 83 X 41 X 1.5 THK	20772 (0.948 KG/M) 71 X 30 X 1.5 THK	21009 (0.964 KG/M) 65 X 30 X 1.5 THK	21008 (0.762 KG/M) 65 X 30 X 1.5 THK	SINGLE GLASS 6MM THK TOUGHENED GLASS TO DESIGN	CUSTOM DESIGN	CUSTOM DESIGN 110 MM X 40 MM X 2 MM THK HOLLOW SECTION SS TIP TRACKS			CUSTOM DESIGN 75 MM X 50 MM X 1.8 MM THK HOLLOW SECTION WITH STIFFNERS			SINGLE GLASS 8MM THK TOUGHENED GLASS TO DESIGN	JOTUN or AKZONBLE Brand 50 micron Colour Powder Coating as per the approved shade	Lock: Alualpha FLUSH MOUNTED TONGUE LOCK WITH SOCKET ROLLER Bearing: NSK JAPAN OF CAPACITY WT OF SHUTTER Woolpile: Imported EPDM Gaskets SS screws
SD7	2 TRACK 4 SHUTTERS	4000	2100 TO 2400	30 SERIES JINDAL OR 35X75 SERIES GEETA	21217 (1.502 KG/M) 83 X 52 X 1.5 THK	20835 (0.904 KG/M) 83 X 41 X 1.5 THK	20835 (0.904 KG/M) 83 X 41 X 1.5 THK	20772 (0.948 KG/M) 71 X 30 X 1.5 THK	21009 (0.964 KG/M) 65 X 30 X 1.5 THK	21008 (0.762 KG/M) 65 X 30 X 1.5 THK	SINGLE GLASS 6MM THK TOUGHENED GLASS TO DESIGN	CUSTOM DESIGN	CUSTOM DESIGN 110 MM X 40 MM X 2 MM THK HOLLOW SECTION SS TIP TRACKS			CUSTOM DESIGN 75 MM X 50 MM X 1.8 MM THK HOLLOW SECTION WITH STIFFNERS			SINGLE GLASS 8MM THK TOUGHENED GLASS TO DESIGN	JOTUN or AKZONBLE Brand 50 micron Colour Powder Coating as per the approved shade	Lock: Alualpha FLUSH MOUNTED TONGUE LOCK WITH SOCKET ROLLER Bearing: NSK JAPAN OF CAPACITY WT OF SHUTTER Woolpile: Imported EPDM Gaskets SS screws

SLIDING WINDOW																					
SW1	3 TRACK 3 SHUTTERS	3000	1500	25 SERIES JINDAL OR 25 SERIES GEETA	20673 (1.619 KG/M) 116 X 40 X 1.3 THK	20798 (1.16 KG/M) 116 X 25 X 1.35 THK	20798 (1.16 KG/M) 116 X 25 X 1.35 THK	20842 (0.781 KG/M) 60 X 25 X 1.45 THK	21091 (0.776 KG/M) 50 X 25 X 1.48 THK	21056 (0.717 KG/M) 50 X 25 X 1.51 THK	SINGLE GLASS 6MM THK TOUGHENED GLASS TO DESIGN	30 SERIES JINDAL OR 35X75 SERIES GEETA	20928 (2.032 KG/M) 124 X 51 X 1.5 THK	20837 (1.197 KG/M) 124 X 41 X 1.5 THK	20837 (1.197 KG/M) 124 X 41 X 1.5 THK	20772 (0.948 KG/M) 71 X 30 X 1.5 THK	21009 (0.964 KG/M) 65 X 30 X 1.5 THK	21008 (0.762 KG/M) 65 X 30 X 1.5 THK	SINGLE GLASS 8MM THK TOUGHENED GLASS TO DESIGN	JOTUN or AKZONBLE Brand 50 micron Colour Powder Coating as per the approved shade	Lock: Alualpha FLUSH MOUNTED TONGUE LOCK WITH SOCKET ROLLER Bearing: NSK JAPAN OF CAPACITY WT OF SHUTTER Woolpile: Imported EPDM Gaskets SS screws
SW2	3 TRACK 3 SHUTTERS	2000	1500	25 SERIES JINDAL OR 25 SERIES GEETA	20673 (1.619 KG/M) 116 X 40 X 1.3 THK	20798 (1.16 KG/M) 116 X 25 X 1.35 THK	20798 (1.16 KG/M) 116 X 25 X 1.35 THK	20842 (0.781 KG/M) 60 X 25 X 1.45 THK	21091 (0.776 KG/M) 50 X 25 X 1.48 THK	21056 (0.717 KG/M) 50 X 25 X 1.51 THK	SINGLE GLASS 6MM THK TOUGHENED GLASS TO DESIGN	30 SERIES JINDAL OR 35X75 SERIES GEETA	20928 (2.032 KG/M) 124 X 51 X 1.5 THK	20837 (1.197 KG/M) 124 X 41 X 1.5 THK	20837 (1.197 KG/M) 124 X 41 X 1.5 THK	20772 (0.948 KG/M) 71 X 30 X 1.5 THK	21009 (0.964 KG/M) 65 X 30 X 1.5 THK	21008 (0.762 KG/M) 65 X 30 X 1.5 THK	SINGLE GLASS 8MM THK TOUGHENED GLASS TO DESIGN	JOTUN or AKZONBLE Brand 50 micron Colour Powder Coating as per the approved shade	Lock: Alualpha FLUSH MOUNTED TONGUE LOCK WITH SOCKET ROLLER Bearing: NSK JAPAN OF CAPACITY WT OF SHUTTER Woolpile: Imported EPDM Gaskets SS screws
SW3	2 TRACK 2 SHUTTERS	2000	1050 TO 1350	25 SERIES JINDAL OR 25 SERIES GEETA	20676 (1.073 KG/M) 75 X 45.5 X 1.25 THK	20634 (0.619 KG/M) 75 X 25.4 X 1.3 THK	20634 (0.619 KG/M) 75 X 25.4 X 1.3 THK	20842 (0.781 KG/M) 60 X 25 X 1.45 THK	21091 (0.776 KG/M) 50 X 25 X 1.48 THK	21056 (0.717 KG/M) 50 X 25 X 1.51 THK	SINGLE GLASS 6MM THK TOUGHENED GLASS TO DESIGN	30 SERIES JINDAL OR 35X75 SERIES GEETA	21217 (1.502 KG/M) 83 X 52 X 1.5 THK	20835 (0.904 KG/M) 83 X 41 X 1.5 THK	20835 (0.904 KG/M) 83 X 41 X 1.5 THK	20772 (0.948 KG/M) 71 X 30 X 1.5 THK	21009 (0.964 KG/M) 65 X 30 X 1.5 THK	21008 (0.762 KG/M) 65 X 30 X 1.5 THK	SINGLE GLASS 8MM THK TOUGHENED GLASS TO DESIGN	JOTUN or AKZONBLE Brand 50 micron Colour Powder Coating as per the approved shade	Lock: Alualpha FLUSH MOUNTED TONGUE LOCK WITH SOCKET ROLLER Bearing: NSK JAPAN OF CAPACITY WT OF SHUTTER Woolpile: Imported EPDM Gaskets SS screws
SW4	2 TRACK 4 SHUTTERS	4000	1050 TO 1350	25 SERIES JINDAL OR 25 SERIES GEETA	20676 (1.073 KG/M) 75 X 45.5 X 1.25 THK	20634 (0.619 KG/M) 75 X 25.4 X 1.3 THK	20634 (0.619 KG/M) 75 X 25.4 X 1.3 THK	20842 (0.781 KG/M) 60 X 25 X 1.45 THK	21091 (0.776 KG/M) 50 X 25 X 1.48 THK	21056 (0.717 KG/M) 50 X 25 X 1.51 THK	SINGLE GLASS 6MM THK TOUGHENED GLASS TO DESIGN	30 SERIES JINDAL OR 35X75 SERIES GEETA	21217 (1.502 KG/M) 83 X 52 X 1.5 THK	20835 (0.904 KG/M) 83 X 41 X 1.5 THK	20835 (0.904 KG/M) 83 X 41 X 1.5 THK	20772 (0.948 KG/M) 71 X 30 X 1.5 THK	21009 (0.964 KG/M) 65 X 30 X 1.5 THK	21008 (0.762 KG/M) 65 X 30 X 1.5 THK	SINGLE GLASS 8MM THK TOUGHENED GLASS TO DESIGN	JOTUN or AKZONBLE Brand 50 micron Colour Powder Coating as per the approved shade	Lock: Alualpha FLUSH MOUNTED TONGUE LOCK WITH SOCKET ROLLER Bearing: NSK JAPAN OF CAPACITY WT OF SHUTTER Woolpile: Imported EPDM Gaskets SS screws
SW5	3 TRACK 3 SHUTTERS	3000	1050 TO 1350	25 SERIES JINDAL OR 25 SERIES GEETA	20673 (1.619 KG/M) 116 X 40 X 1.3 THK	20798 (1.16 KG/M) 116 X 25 X 1.35 THK	20798 (1.16 KG/M) 116 X 25 X 1.35 THK	20842 (0.781 KG/M) 60 X 25 X 1.45 THK	21091 (0.776 KG/M) 50 X 25 X 1.48 THK	21056 (0.717 KG/M) 50 X 25 X 1.51 THK	SINGLE GLASS 6MM THK TOUGHENED GLASS TO DESIGN	30 SERIES JINDAL OR 35X75 SERIES GEETA	20928 (2.032 KG/M) 124 X 51 X 1.5 THK	20837 (1.197 KG/M) 124 X 41 X 1.5 THK	20837 (1.197 KG/M) 124 X 41 X 1.5 THK	20772 (0.948 KG/M) 71 X 30 X 1.5 THK	21009 (0.964 KG/M) 65 X 30 X 1.5 THK	21008 (0.762 KG/M) 65 X 30 X 1.5 THK	SINGLE GLASS 8MM THK TOUGHENED GLASS TO DESIGN	JOTUN or AKZONBLE Brand 50 micron Colour Powder Coating as per the approved shade	Lock: Alualpha FLUSH MOUNTED TONGUE LOCK WITH SOCKET ROLLER Bearing: NSK JAPAN OF CAPACITY WT OF SHUTTER Woolpile: Imported EPDM Gaskets SS screws
SW6	3 TRACK 6 SHUTTERS	6000	1050 TO 1350	25 SERIES JINDAL OR 25 SERIES GEETA	20673 (1.619 KG/M) 116 X 40 X 1.3 THK	20798 (1.16 KG/M) 116 X 25 X 1.35 THK	20798 (1.16 KG/M) 116 X 25 X 1.35 THK	20842 (0.781 KG/M) 60 X 25 X 1.45 THK	21091 (0.776 KG/M) 50 X 25 X 1.48 THK	21056 (0.717 KG/M) 50 X 25 X 1.51 THK	SINGLE GLASS 6MM THK TOUGHENED GLASS TO DESIGN	30 SERIES JINDAL OR 35X75 SERIES GEETA	20928 (2.032 KG/M) 124 X 51 X 1.5 THK	20837 (1.197 KG/M) 124 X 41 X 1.5 THK	20837 (1.197 KG/M) 124 X 41 X 1.5 THK	20772 (0.948 KG/M) 71 X 30 X 1.5 THK	21009 (0.964 KG/M) 65 X 30 X 1.5 THK	21008 (0.762 KG/M) 65 X 30 X 1.5 THK	SINGLE GLASS 8MM THK TOUGHENED GLASS TO DESIGN	JOTUN or AKZONBLE Brand 50 micron Colour Powder Coating as per the approved shade	Lock: Alualpha FLUSH MOUNTED TONGUE LOCK WITH SOCKET ROLLER Bearing: NSK JAPAN OF CAPACITY WT OF SHUTTER Woolpile: Imported EPDM Gaskets SS screws
SW7	4 TRACK 4 SHUTTERS	4000	2400	30 SERIES JINDAL OR 27 SERIES GEETA	21198 (3.197 KG/M) 164.9 X 51 X 2MM THK	21204 (1.694 KG/M) 164.9 X 41 X 1.6 THK	21204 (1.694 KG/M) 164.9 X 41 X 1.6 THK	20772 (0.948 KG/M) 71 X 30 X 1.5 THK	21009 (0.964 KG/M) 65 X 30 X 1.5 THK	21008 (0.762 KG/M) 65 X 30 X 1.5 THK	SINGLE GLASS 8MM THK TOUGHENED GLASS TO DESIGN	CUSTOM DESIGN	CUSTOM DESIGN 210 MM X 55 MM X 2 MM THK HOLLOW SECTION SS TIP TRACKS			CUSTOM DESIGN 75 MM X 50 MM X 1.8 MM THK HOLLOW SECTION WITH STIFFNERS			SINGLE GLASS 8MM THK TOUGHENED GLASS TO DESIGN	JOTUN or AKZONBLE Brand 50 micron Colour Powder Coating as per the approved shade	Lock: Alualpha FLUSH MOUNTED TONGUE LOCK WITH SOCKET ROLLER Bearing: NSK JAPAN OF CAPACITY WT OF SHUTTER Woolpile: Imported EPDM Gaskets

ID MARK	CONFIGUARATION	SIZE		HEIGHT OF BUILDING 0 M TO 50 M - 1.5 Kpa						HEIGHT OF BUILDING 51M TO 100 M - 2 Kpa									
		W	H	ALUMINIUM SECTION SERIES	OUTER FRAME	SHUTTER FRAME	CENTER MULLION	CLIP	GLASS	ALUMINIUM SECTION SERIES	OUTER FRAME	SHUTTER FRAME	CENTER MULLION	CLIP	GLASS	COATING	HARDWARE ETC
CASEMENT WINDOWS																	
CW1	SIDE HUNG 2 SHUTTERS MIDDLE + 1 FIXED & 3 +3 FIXED TOP & BOTTOM	3000	2400	CUSTOM DESIGN	80MM X 40 MM X 2 MM THK HOLLOW SECTION	80MM X 40 MM X 2 MM THK HOLLOW SECTION			SINGLE GLASS 6 MM THK HEAT STRENGTHENED GLASS TO DESIGN	CUSTOM DESIGN	80MM X 40 MM X 2 MM THK HOLLOW SECTION	80MM X 40 MM X 2 MM THK HOLLOW SECTION			SINGLE GLASS 6 MM THK HEAT STRENGTHENED GLASS TO DESIGN	JOTUN or AKZONBLE Brand 50 micron Colour Powder Coating as per the approved shade	Lock: Alualpha FLUSH MOUNTED TONGUE LOCK WITH SOCKET ROLLER Bearing: NSK JAPAN OF CAPACITY WT OF SHUTTER Woolpile: Imported EPDM Gaskets SS screws
CW2	SIDE HUNG 2 SHUTTERS MIDDLE FIXED	3000	1500	CASEMENT WINDOW SERIES B OF JINDAL OR 52 MM SPECIAL OPENABLE WINDOW SERIES	20058 (0.534 KG/M) 42 X 31 X 1.6 MM THK WITH STIFFNERS	20059 (0.724 KG/M) 42X 46.2 X 1.5 MM THK	20560 (0.764 KG/M) 42 X 46.2 X 1.6 THK WITH STIFFNERS	19391 (0.289 KG/M)28 X 15.3 X 1.5 MM THK	6mm clear Heat Strengthened glass (Saint Gobain/ Asahi/ Modi/or approved equal make)	CUSTOM DESIGN	80MM X 40 MM X 2 MM THK HOLLOW SECTION	80MM X 40 MM X 2 MM THK HOLLOW SECTION			SINGLE GLASS 6 MM THK HEAT STRENGTHENED GLASS TO DESIGN	JOTUN or AKZONBLE Brand 50 micron Colour Powder Coating as per the approved shade	Lock: Alualpha FLUSH MOUNTED TONGUE LOCK WITH SOCKET ROLLER Bearing: NSK JAPAN OF CAPACITY WT OF SHUTTER Woolpile: Imported EPDM Gaskets SS screws
CW3	SIDE HUNG 2 SHUTTERS	1400	1350	CASEMENT WINDOW SERIES B OF JINDAL OR 52 MM SPECIAL OPENABLE WINDOW SERIES	20058 (0.534 KG/M) 42 X 31 X 1.6 MM THK	20059 (0.724 KG/M) 42X 46.2 X 1.5 MM THK	20560 (0.764 KG/M) 42 X 46.2 X 1.6 THK	19391 (0.289 KG/M)28 X 15.3 X 1.5 MM THK	6mm clear Heat Strengthened glass (Saint Gobain/ Asahi/ Modi/or approved equal make)	CASEMENT WINDOW SERIES B OF JINDAL OR 52 MM SPECIAL OPENABLE WINDOW SERIES	20058 (0.534 KG/M) 42 X 31 X 1.6 MM THK WITH STIFFNERS	20059 (0.724 KG/M) 42X 46.2 X 1.5 MM THK	20560 (0.764 KG/M) 42 X 46.2 X 1.6 THK WITH STIFFNERS	19391 (0.289 KG/M)28 X 15.3 X 1.5 MM THK	6mm clear Heat Strengthened glass (Saint Gobain/ Asahi/ Modi/or approved equal make)	JOTUN or AKZONBLE Brand 50 micron Colour Powder Coating as per the approved shade	Lock: Alualpha FLUSH MOUNTED TONGUE LOCK WITH SOCKET ROLLER Bearing: NSK JAPAN OF CAPACITY WT OF SHUTTER Woolpile: Imported EPDM Gaskets SS screws
CW2	SIDE HUNG 1 SHUTTER	600	1350	CASEMENT WINDOW SERIES B OF JINDAL OR 52 MM SPECIAL OPENABLE WINDOW SERIES	20058 (0.534 KG/M) 42 X 31 X 1.6 MM THK	20059 (0.724 KG/M) 42X 46.2 X 1.5 MM THK	20560 (0.764 KG/M) 42 X 46.2 X 1.6 THK	19391 (0.289 KG/M)28 X 15.3 X 1.5 MM THK	6mm clear Heat Strengthened glass (Saint Gobain/ Asahi/ Modi/or approved equal make)	CUSTOM DESIGN	80MM X 40 MM X 2 MM THK HOLLOW SECTION	80MM X 40 MM X 2 MM THK HOLLOW SECTION	80MM X 40 MM X 2 MM THK HOLLOW SECTION	80MM X 40 MM X 2 MM THK HOLLOW SECTION	SINGLE GLASS 6 MM THK HEAT STRENGTHENED GLASS TO DESIGN	JOTUN or AKZONBLE Brand 50 micron Colour Powder Coating as per the approved shade	Lock: Alualpha FLUSH MOUNTED TONGUE LOCK WITH SOCKET ROLLER Bearing: NSK JAPAN OF CAPACITY WT OF SHUTTER Woolpile: Imported EPDM Gaskets SS screws
V1	SIDE HUNG 1 SHUTTER + 2F + EXHAUST	950	1650	CASEMENT WINDOW SERIES B OF JINDAL OR 52 MM SPECIAL OPENABLE WINDOW SERIES	20058 (0.534 KG/M) 42 X 31 X 1.6 MM THK	20059 (0.724 KG/M) 42X 46.2 X 1.5 MM THK	20560 (0.764 KG/M) 42 X 46.2 X 1.6 THK	19391 (0.289 KG/M)28 X 15.3 X 1.5 MM THK	6mm ACID FROSTED Heat Strengthened glass (Saint Gobain/ Asahi/ Modi/or approved equal make)	CUSTOM DESIGN	80MM X 40 MM X 2 MM THK HOLLOW SECTION	80MM X 40 MM X 2 MM THK HOLLOW SECTION			SINGLE GLASS 6 MM THK ACID FROSTED HEAT STRENGTHENED GLASS TO DESIGN	JOTUN or AKZONBLE Brand 50 micron Colour Powder Coating as per the approved shade	Lock: Alualpha FLUSH MOUNTED TONGUE LOCK WITH SOCKET ROLLER Bearing: NSK JAPAN OF CAPACITY WT OF SHUTTER Woolpile: Imported EPDM Gaskets SS screws
V2	SIDE HUNG 1 SHUTTER + 1F + EXHAUST	700	1650	CASEMENT WINDOW SERIES B OF JINDAL OR 52 MM SPECIAL OPENABLE WINDOW SERIES	20058 (0.534 KG/M) 42 X 31 X 1.6 MM THK	20059 (0.724 KG/M) 42X 46.2 X 1.5 MM THK	20560 (0.764 KG/M) 42 X 46.2 X 1.6 THK	19391 (0.289 KG/M)28 X 15.3 X 1.5 MM THK	6mm ACID FROSTED Heat Strengthened glass (Saint Gobain/ Asahi/ Modi/or approved equal make)	CASEMENT WINDOW SERIES B OF JINDAL OR 52 MM SPECIAL OPENABLE WINDOW SERIES	20058 (0.534 KG/M) 42 X 31 X 1.6 MM THK	20059 (0.724 KG/M) 42X 46.2 X 1.5 MM THK	20560 (0.764 KG/M) 42 X 46.2 X 1.6 THK	19391 (0.289 KG/M)28 X 15.3 X 1.5 MM THK	6mm ACID FROSTED Heat Strengthened glass (Saint Gobain/ Asahi/ Modi/or approved equal make)	JOTUN or AKZONBLE Brand 50 micron Colour Powder Coating as per the approved shade	Lock: Alualpha FLUSH MOUNTED TONGUE LOCK WITH SOCKET ROLLER Bearing: NSK JAPAN OF CAPACITY WT OF SHUTTER Woolpile: Imported EPDM Gaskets SS screws
V3	SIDE HUNG 1 SHUTTER + 1F + EXHAUST	600	1350	CASEMENT WINDOW SERIES B OF JINDAL OR 52 MM SPECIAL OPENABLE WINDOW SERIES	20058 (0.534 KG/M) 42 X 31 X 1.6 MM THK	20059 (0.724 KG/M) 42X 46.2 X 1.5 MM THK	20560 (0.764 KG/M) 42 X 46.2 X 1.6 THK	19391 (0.289 KG/M)28 X 15.3 X 1.5 MM THK	6mm ACID FROSTED Heat Strengthened glass (Saint Gobain/ Asahi/ Modi/or approved equal make)	CASEMENT WINDOW SERIES B OF JINDAL OR 52 MM SPECIAL OPENABLE WINDOW SERIES	20058 (0.534 KG/M) 42 X 31 X 1.6 MM THK	20059 (0.724 KG/M) 42X 46.2 X 1.5 MM THK	20560 (0.764 KG/M) 42 X 46.2 X 1.6 THK	19391 (0.289 KG/M)28 X 15.3 X 1.5 MM THK	6mm ACID FROSTED Heat Strengthened glass (Saint Gobain/ Asahi/ Modi/or approved equal make)	JOTUN or AKZONBLE Brand 50 micron Colour Powder Coating as per the approved shade	Lock: Alualpha FLUSH MOUNTED TONGUE LOCK WITH SOCKET ROLLER Bearing: NSK JAPAN OF CAPACITY WT OF SHUTTER Woolpile: Imported EPDM Gaskets SS screws

General guide lines for Sliding door/Window, Casement window

1. For sliding door windows, no. of tracks should be restricted to 3 (maybe 4 in exception circumstances due to extreme room dimensions, but generally 4 tracks are to be avoided). 2 tracks can serve up to 4 m wide opening (2 tracks x 2 shutters from each side x 1 m width of each shutter = 4 m) and 3 tracks up to 6 m wide opening (3 tracks x 3 shutters from each side x 1 m width of each shutter = 6 m).
2. Sliding door or Window shutter size shall be as far as possible not exceed 1000 mm wide.
3. Maximum sliding door shall be 6000mm wide which shall be custom designed with testing for performance parameters.
4. Casement windows shall as far as possible be avoided as it is expensive.
5. Bottom Tracks for sliding Door & Window & Casement window Sub frame shall be hollow sections with drain chambers.

6. Drain holes in Tracks / Drain Frame shall be staggered & slot holes.

7. All aluminium sections shall be powder coated with AKZONOBEL / JOTUN or equivalent with minimum 10 year Warranty.

8. All Sliding Door / Window & Casement Windows shall have double seals weather strips with EPDM Gaskets. Wool pile / Mohair to prevent air, noise & water infiltration.
9. All Aluminium Sliding doors & windows sections shall be checked & cleared with Structural Calculations by vendor.
10. All customized windows shall be performance tested as per ASTM E 283/ 330 /331/501

General Guidelines for Glazing:

- Curtain wall / Structural Glazing shall be limited as far as possible with WWR (Window Wall Ratio) of not greater than 60% WWR (Window wall Ratio) is the ratio of Vertical Fenestration area to gross exterior wall area. Gross exterior wall area is measured horizontally from the exterior surfaces: it is measured vertically from top of the floor to the bottom of the roof. All areas (including the frames) in the building that let in light on vertical surface of building (i.e. Vision area) is Vertical fenestration area.
- Keep 5% operable for ventilation as per CFO requirements.
- Vision area shall be DGU with SHGC 0.4, U Value 3.5 W/Sq.m deg K
- Spandrel area Single Glass with painted back pan & Rock wool insulation.