

#### VISHAKHA SOLAR GLASS (P) LIMITED

#### SPECIFICATION FOR LOW IRON SOLAR TEXTURED GLASS (Tempered Glass)

Parameters	Test Method / Standard		Specification				
DIMENS	SIONS, PHY	SICAL AND EDGE (	QUALIT	Υ			
Dimensional (L x W) mm			As per Specified Dimensions				
Dimensional Tolerance (L x W) mm	Measuring Tape		Length: + 1mm, - 1.0mm Width: + 1 mm, -1.0mm				
Nominal Thickness (mm)	Disc Micrometer (ø 20mm)		± 0.2 mm				
Density of Glass	Sink & Float method		2.5 ± 0.0020 gram/cc				
Angularity (maximum difference in diagonal	Measuring Tape		Maximum <b>2.0 mm</b>				
lengths)			-				
Corner Cut (Tape)	Measuring Tape		Min: 1.0 mm, Max: 4.0 mm				
Edge Processing	Visual		C-Edge grinding				
Shells/ Chipping (Max: L x W x D)	Visual / Measuring Tape		Not allowed				
General Bow	EN 12150-1:2015		2.0 mm / meter				
Local Bow	EN 12150-1:2015		Maximum 0.5 mm / 300 mm				
Light Transmittance Tv	EN 410 (C AM 1.5	EN 410 (D65), 380 – 1100 nm, AM 1.5		≥ 91.5% (Without ARC) ≥ 93.8% (With ARC) Avg 350 ~ 1100 nm wavelength range.			
Fragmentation			Fragment Count in 50x50 mm ≥ 40 Nos.				
Surface Roughness Ra Value Avg.	Surface roughness tester from Mitutoyo		0.3 μm ~1.6 μm				
Iron content In Glass (PPM)	AAS		≤ 120 PPM				
	GLAS	S QUALITY	<b>'</b>				
Test criteria (EN 572 – 5 : 2012 / 5.2.1)	oonditions	Spherical bubbles/c	core/ <b>pe</b>	er m²(Cluster ty	pe blister/bubble	not allowed)	
The glass pane to be examined is illuminated in conditions approximating to diffuse light and is observed in front of a matt greyscreen  Place the pane of Glass to be examined vertically 3m in		Diameter		Max Allowed		Allowed	
		≥ 0.5 - ≤ 1.0mm			5		
		≥ 1.0 - ≤ 2.0mm			2		
front of parallel to a matt grey screen. Arrange the point		> 2.0 mm			0		
of observation 1.5m from the glass, keeping the direction ofobservation normal to the glass surface.		Langitudinal hubbles nor m²					
		Longitudinal bubbles <b>per</b> m²  Length >1.5mm -			> F	> 10	
		Length	'	>1.5mm - ≤ 5 mm	> 5mm - ≤ 10 mm	>10 mm	
		Width≤ 0.5mm		3	1	0	
		Width > 0.5		0	0	0	
Cleanliness		Irremovable dirt is not permitted					
Open Blister		Not permitted					
Cluster		Visual		Cluster not allowed			
Scratches		L≤5 and W≤0.5		5 ≤ L ≤10 and W ≤ 0.5			
		4/sqm	1	1/sqm			
Edge Defect		L≤10mm, W≤2mm, D≤ 1/3 of the glass thickness, allowed 1 per glass					

Note: In addition to above

- a) Micro chipping, Open Bubble, Stone, Crush, Crizzles ,White Speek, Roller Scar , Lines Solid inclusion, Prism aberrations, Surface defect not allowed.
- b) For defects ( $\phi/L > 2mm$ ), the gap between the defects must be more than 600mm.
- c) Cluster means Spherical Bubbles are more than 20 nos or Longitudinal Bubbles are more than 10nos within the circle with 100mm diameter.
- d) Scratches or Inclusion must be not more than 2 nos within the circle with 100mm diameter.

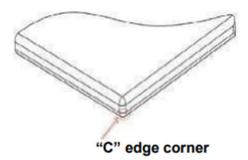
# **VISHAKHA**

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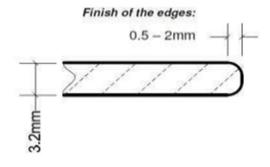
e) Supplier shall provide third party test report for the Young Modulus–70GPa Min and Hardness–6Mohs Scale min or 470 Knoop (intender load 500g) for the glass supplies

**<u>Cut Corner</u>:-** Min. – 1.0 mm, Max. - 4.0 mm (Sharp edge not allowable)



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## Edge grinding -C-Edge



## **Packaging**

- There has to be interleaving protective in form of paper (a) PH should be 6.0±1.0
- Silica gel has to be provided for absorbing moisture. 60 ~ 100 micron polythene to be used for wrapping the sheets fully covered or as per the last supplies delivered, for any material change prior approval is mandatory.