



Tempered Low Iron Patterned Solar Glass Specification

1. Definition of Tempered Solar Glass

Tempered low iron patterned solar glass, which is processed and strengthened from low iron solar patterned glass through edge grinding, tempering and so on, is a kind of low iron solar glass used in solar module

2. Iron Content $\leq 0.012\%$ (Fe_2O_3)

3. Visible Light Transmittance (3.2mm) $> 91.5\%$

4. Dimension Tolerance

Dimension tolerance of glass should be within the scope regulated in table 1 below:

Table 1

Glass dimension tolerance criteria		
Thickness	Thickness Tolerance	Dimension Tolerance
3.2mm	$\pm 0.20\text{mm}$	$\pm 1.0\text{mm}$
4.0 mm	$\pm 0.20\text{mm}$	$\pm 1.0\text{mm}$

Remark: Special thickness and requirement will be agreed by seller and buyer

5. Diagonal Line Tolerance

Difference of two diagonal lines $\leq 0.1\%$ (Average length of two diagonal lines)

(1). Average length of two diagonal lines: 0mm ~ 1000mm, $\leq 1\text{mm}$

(2). Average length of two diagonal lines: 1000mm ~ 3000mm, $\leq 2\text{mm}$



6. Overall, local warp should be in accordance with regulations in table 2

Table 2 :Bow/Warp Tolerance

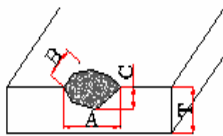
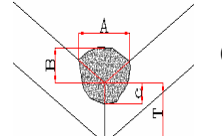
Bow/Warp	Scope allowed
Overall Bow/Warp	$\leq 3\text{mm/m}^2$ (0.3%)
Local Bow/Warp	$1 \leq 0.50\text{mm}/300\text{mm}$; Measured within the area from 25mm of the edge

7. Appearance quality of solar glass is in accordance with regulations in table 3

Table3

Type of defects		Statement	Quality Judgment		
Pattern Obscurity		Visible	Not allowed		
Bubble (All open Bubbles are not allowed)	Long bubble (mm)	$\begin{matrix} \text{Length(mm)} \\ \text{Width(mm)} \end{matrix}$	$0.5 < L < 1$	$1 < L < 3$	$L > 3$
			$W \leq 0.5$	5 pcs/m ²	3 pcs/m ²
		$W > 0.5$	/	/	Not
	Body bubble (mm)	1) $L < 0.3$ unlimited; 2) 0.5-1.0mm 5 pcs/m ²			
All open bubbles are not allowed (Depth < 0.5 mm)					
Stone, Inclusion	Length(mm)	$0.3 \leq L \leq 0.5$	$0.5 \leq L \leq 1.0$	$L > 1.0$ mm	
	Not allowed	3×S	1×S	Not allowed	
Lines	Visible	Not allowed			
Wrinkle, Crack	Visible	Not allowed			
Roll scar, Rainbow, Mildew	Visible	Not allowed			



Scratches (strips/ m ²)	Pattern / side (mm)	L≤50 ; W<0.4 ; 4×S	
	Remark: D(Depth)≤0.5mm。		
Edge process	Bright Spot and Line is allowed after edge rough grinding		
	Edge Crack(mm)		Corner Defect(mm)
			
	$A \leq 10\text{mm}$ $B \leq 2\text{mm}$ $C \leq 1/3T$ T: Thickness		$A \leq 3\text{mm}$ $B \leq 3\text{mm}$ $C \leq 1/3T$ T: Thickness
Remarks: 1. ‘L’ represents Length, ‘W’ represents Width, ‘S’ represents Square Meter(Glass), retains two decimals. 2. The No. of bubble, stone, inclusion and scratch strip within allowed scope can be figured out by coefficient times S and should be modify to an integer according to GB/T8170			

8. Acceptance Standard

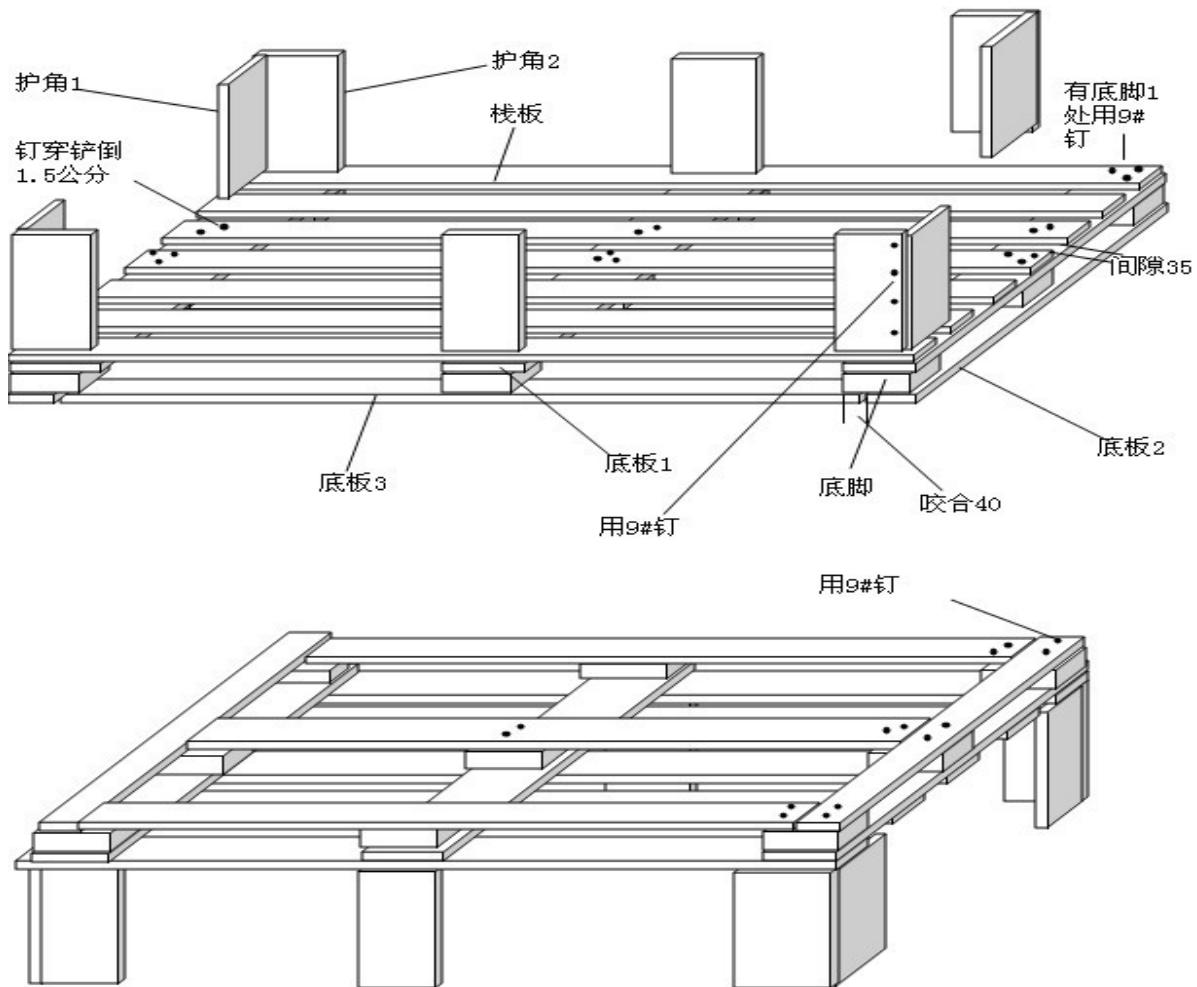
- 8.1 Dimension, diagonal and thickness are tested per hour on line and the glass is deemed substandard if one of the inspection items is unqualified.
- 8.2 For appearance defects, after inspection on line and assistance inspection on glass picking up platform, the whole batch of glass will be disposed if there is any defects beyond standard.
- 8.3 The glass is considered substandard if any item of appearance, impact resistance, curve is unqualified.

9. Package and transportation



9. 1 Wooden case should be steady and firm, woodiness is not decay, Steel belt should be tight.
9. 2 Acid paper to be interlaid glass or powder to be sprayed between glass(Special requirement is excepted).
9. 3 Plastic paper to be laid interior wooden case.
9. 4 There should be glass thickness, dimension, company log, fragile, humidity resistant, never lie flat and suspending mark on the side of wooden cases.
9. 5 Make it steady and firm when transporting.

Packing pictures for tempered solar glass:







Packing pictures for annealed solar glass:

