



# Glass Plates Square

Float Transparent Glass excels in smoothness and has little distortion. Heat Resistant Glass (TEMPAX Float®) excels in heat and impact resistance. Reinforced Glass has 3-5 times higher static strength compared to general glass with the same thickness. Specifications of Heat-Resistant Crystallized Glass, which has excellent heat resistance and strength, is added.

No.	Configurable Type	Fixed Dimension Type	Material	Heat-Resistant Temperature		T Tolerance			A/B Tolerance	
				Continuous Use	Max.	Type	T	Tolerance	Type	A/B Tolerances
1	FGLKF	GLKF	Transparent Float Glass (Soda-Lime Glass)	80 °C	—	GLKF	3, 3.3, 5, 6	±0.3	FGLKF	±1.0 ±2.0
2	FGLKH	GLKH	Heat-Resistant Glass (TEMPAX Float®)	230 °C	500 °C	FGLKH	8, 10	±0.6	FGLKH	±1.0 ±2.0
3	FGLKK	GLKK	Reinforced Glass	180 °C	200 °C	FGLKK			FGLKK	±0.2 ±0.4
4	FGLKR	—	Heat-Resistant Crystallized Glass (Nextrema®)	700 °C	850 °C	FGLKR			FGLKR	±0.2 ±0.4

① Heat resistant temperature will be largely varied depending on the operating condition. Values are not guaranteed.  
② Cannot be used for Class-1 pressure vessels, Class-2 pressure vessels, or equipment specifically for high pressure gas.

Pre-Drilled Type

2H 2-Screw Nominal Dia. Selection 4H 4-Screw Nominal Dia. Selection 6H 6-Screw Nominal Dia. Selection 8H 8-Screw Nominal Dia. Selection

Hole Machining Details

N (Through hole) P (Countersink)

① A≥B Circumference Chamfering C0.3-1.0

② Keep a dimension of 5 mm or more between hole end and glass end.

## Configurable Type

Part Number	1 mm Increment		
	Type	T	A B
FGLKF Float Transparent Glass	3	20-500	20-500
	5	20-800	
	8	20-800	
FGLKH Heat-Resistant Glass	3.3	20-500	20-500
	5	20-800	
	6.5	20-800	
	*10	20-800	
FGLKK Reinforced Glass	3.3	51-500	51-500
	5	51-800	
	6	71-800	
	8	71-800	
FGLKR Heat-Resistant Crystallized Glass	3	20-500	20-500
	5	20-800	

## Fixed Dimension Type

Part Number	Type	T	Selection	
			A	B
GLKF Float Transparent Glass	3	5	50	50
			100	50 100
			150	100 150
	5	100	50 100	150
			150	200
			200	200
GLKH Heat-Resistant Glass	3.3	5	50	50
			100	50 100
			150	100 150
	5	100	50 50	200
			100	50 100
			150	100
GLKK Reinforced Glass	3	5	50	50
			100	50 100
			150	100 150
	5	100	200	200
			250	150 250
			300	100 250 300

## 4-Side Milled Type

(A, B Dimension Tolerance ±0.2)

Part Number	1mm Increment		
	Type	Finish Selection	T A B
FGLKF Float Transparent Glass	4F	3	20-400 20-300
		5	20-800 20-500
		8	20-400 20-300
		3.3	20-400 20-300
		5	20-800 20-500
FGLKH Heat-Resistant Glass	4F	3	51-400 51-300
		5	51-800
		6	71-800
		8	71-800
		10	71-800
FGLKK Reinforced Glass	4F	3	20-400 20-300
		5	20-800 20-500
		5	20-800 20-500

## Pre-Drilled Type A≤500

Part Number	1 mm Increment				Screw Nominal Dia.						
	Type	Number of Holes	T	A B	F G	N (Through) P (Countersink)					
FGLKF Float Transparent Glass	2H	2	3	30-500	13-450 (2H, 4H)	11-450 (2H)	3 (T≤8)				
			5					13-450 (4H, 6H)	13-450 (4H, 6H)		
			8							13-225 (6H, 8H)	13-225 (8H)
FGLKH Heat-Resistant Glass	4H	4	3.3	30-500	13-450 (2H, 4H)	11-450 (2H)	3 (T≤8)				
			5					13-225 (6H, 8H)	13-225 (8H)		
			6.5							13-225 (6H, 8H)	13-225 (8H)
			*10								
FGLKR Heat-Resistant Crystallized Glass	8H	2	3	30-500	13-450 (2H, 4H)	11-450 (2H)	3 (T≤8)				
			5								

## Heat-Resistant Glass (TEMPAX Float®)

Borosilicate Glass with both surfaces finished flat and smooth by the Float method. Has high optical transparency and excellent optical quality such as the distortion free property.

## Reinforced Glass

Float transparent glass with reinforce treatment applied. Configurable product can now be selected. As the glass is heat-treated, processing such as cutting, chamfering, and hole machining is not possible after purchase.

## Heat-Resistant Crystallized Glass (Nextrema®)

Can be used in high temperature range and has excellent thermal shock resistance. In addition, has high bending stress. Can be specified freely.

## Pre-Drilled Type A≥501

Part Number	1 mm Increment				Screw Nominal Dia.		
	Type	Number of Holes	T	A B	F G	N (Through) P (Countersink)	
FGLKF (Float Transparent Glass)	2H	2	5	501-800	17-750 (2H, 4H)	12-450 (2H)	8-10-12 (T=5, 6.5)
			8				
FGLKH (Heat Resistant Glass)	4H	4	5	501-800	17-750 (2H, 4H)	12-450 (2H)	8-10-12 (T=5, 6.5)
			6.5				
			8				
			*10				
FGLKR (Heat-resistant Crystallized Glass)	8H	2	5	501-800	17-375 (6H, 8H)	17-225 (8H)	10-12 (T=8, 10)
			5				

① FGLKK can not be pre-drilled.  
② \* FGLKH (heat resistant glass) with the part number T10 has an actual size of 10.2.  
③ F needs to satisfy followed conditions: for 2H or 4H,  $d(d_1)+7.5 \leq F \leq A-50$ , for 6H or 8H,  $d(d_1)+7.5 \leq F \leq A/2-25$   
④ G needs to satisfy followed conditions: for 2H,  $d(d_1)/2+7.5 \leq G \leq B-50$ , for 4H or 6H,  $d(d_1)+7.5 \leq G \leq B-50$ , for 8H,  $d(d_1)+7.5 \leq G \leq B/2-25$   
(d: through hole, d<sub>1</sub>: countersink)

## Part Number Example

Part Number	A	B	F	G	Screw Nominal
GLKK5	- 200	- 200			
FGLKH3.3	- 231	- 210			
FGLKH2H5	- 200	- 150	- F100	- G75	- N5

# Glass Plates Round

Float Transparent Glass excels in smoothness and has little distortion. Heat Resistant Glass (TEMPAX Float) demonstrates excellent heat and impact resistance. Reinforced Glass has 3 to 5 times the static strength of general glass with the same thickness. Specifications of Heat-resistant Crystallized Glass, which has excellent heat resistance and strength, is added. Can be specified in 20 Ø-1 mm increment.

No.	Configurable Type	Fixed Dimension Type	Material	Heat-Resistant Temperature	
				Continuous Use	Max.
1	FGLMF	GLMF	Transparent Float Glass (Soda-Lime Glass)	80 °C	—
2	FGLMH	GLMH	Heat-resistant Glass (TEMPAX Float®)	230 °C	500 °C
3	FGLMK	GLMK	Reinforced Glass	180 °C	200 °C
4	FGLMR	—	Heat-resistant Crystallized Glass (Nextrema®)	700 °C	850 °C

① Heat resistant temperature will be largely varied depending on the operating condition. Values are not guaranteed.  
② Cannot be used for Class-1 pressure vessels, Class-2 pressure vessels, or equipment specifically for high pressure gas.

Hole Machining Details

N (Through hole) P (Countersink)

① A≥B Circumference Chamfering C0.3-1.0

② Keep a dimension of 5 mm or more between hole end and glass end.

T Tolerance

Part Number	T	Tolerance
GLMF	3,3.3, 5, 6	±0.3
GLMK	8-10	±0.6
FGLMF	12-15	±0.8
GLMH	3.3, 5, 6.5	±0.2
FGLMH	8-10-12.2	±0.3
	15	±0.4

## Configurable Type

Part Number	D	
	Type	Selection
FGLMF Float Transparent Glass	3	20-300
	5	
	8	
	10	
	12	
	15	
FGLMH Heat-Resistant Glass	3.3	101-300
	5	
	6.5	
	8	
	*10	
	12.2	
FGLMK (Reinforced Glass)	3	20-300
	5	
	8	
	10	
FGLMR Heat-Resistant Crystallized Glass	3	20-300
	5	

## Fixed Dimension Type

Part Number	Type	T	Selection				
			D	D	D	D	D
GLMF Float Transparent Glass	3	5	50	65	80	95	
			130				
			130				
GLMH Heat-Resistant Glass	3.3	5	50	65	80		
			95	110			
			110	130			
GLMK Reinforced Glass	3	5	50	65	80		
			80	95	110	130	
			110	130	165	185	

① The D dimensions above conform to JIS Flange Standards: O rings of B2290-1998.  
② Not guaranteed against the strength under vacuum.

① \*FGLMH (heat resistant glass) with the part number T10 has an actual size of 10.2.

Part Number Example

Part Number - D - T  
GLMH - 95 - 5

Part Number - D  
FGLMF3 - 100