your favourite glass

TECHNICAL DATA SHEET

GLAS**SHIELD (HST)** (FGTDS/FS-02)

GLASSHIELD (HST)

DESCRIPTION

GLAS**SHIELD (HST)** is a fully tempered (also called toughened or fully toughened) glass that is heat-soaked in an oven under controlled temperatures to reduce or possibly eliminate the possibility of nickel-sulphide (NiS) induced spontaneous breakages. This is a destructive process and the controlled heating forced the NiS impurities to expand and cause breakage in the oven itself rather than at a later date. It is important to note that there could still be some residual stress in the glass, which can cause breakage, but statistically 95% of the possibility is eliminated during the process. The additional mechanical and thermal stress resistance capabilities enable use of GLAS**SHIELD (HST)** in a myriad application space such as facades, interior partitions, frameless glazing, shower cubicles and furniture.

PRODUCT FAMILY

1. GLAS**SHIELD (HST)** FIRST: Clear glass
2. GLAS**SHIELD (HST)** CLARITY: Ultra clear glass
3. GLAS**SHIELD (HST)** TONE: Tinted glass
4. GLAS**SHIELD (HST)** SOLAR: Solar-control coated glass (pyrolytic or MSVD coated)
5. GLAS**SHIELD (HST)** PRO-1: Low-E coated glass (pyrolytic coated)
6. GLAS**SHIELD (HST)** PRO-2, PRO-3, PRO-4: Silver Low-E glasses (MSVD)*

* Not applicable for monolithic glazing. Only possible when made into an insulated or laminated glass glass assembly.

GENERAL CHARACTERISTICS

FEATURE	DESCRIPTION
Process Type	Horizontal Roller-Hearth Convection Furnace
Glass Types	Clear, extra clear, ultra clear, tinted, solar-control coated, low-E coated
Additional Process Compatibility	Ceramic-frit, digitecture™ digital printing, sand-blasting, acid-etching, holes, cutouts and notches
Product Enhancement	Can be converted to CLIMA**COOL** (insulated glass) and LAMI**SECURE** (laminated glass)
Glass Thickness	4 mm to 25 mm
Edge Types	Rough grind, arrissed, super polished
Compressive Stress (Edge)	67 MPa (9,700 psi) minimum
Compressive Stress (Surface)	69 MPa (10,000 psi) minimum
Emissivity	Minimum 0.01**

** Lower emissivity only applicable for insulated or laminated glass assemblies.

UNIQUE SELLING POINTS

HEATING SYSTEM
Top-and-bottom forced turbo-charged convection system

HEATING CONTROL
Heat-scanner with precise measurement points

COOLING CONTROL
Dual-oscillating quenching to minimize anisotropy

DIMENSIONS

FEATURE	DESCRIPTION
Minimum Size	200 mm X 300 mm
Maximum Size	2440 mm X 3660 mm (4 mm and 5 mm)
	3000 mm X 5100 mm (6 mm)
	3000 mm X 6000 mm (8 to 19 mm)
	25 mm maximum size available on request

LABELLING

Each piece of GLAS**SHIELD (HST)** shall be permanently labeled with the FG logo, process type and relevant standard description. In cases where the glass is made under a specific listing, the same shall be incorporated in the label. Order-specific labeling is also possible, under certain terms and conditions.

STANDARDS

GLAS**SHIELD (HST)** is manufactured as per EN 14179-1: 2005.

LISTINGS

1. Bureau of Indian Standards IS 2553: Part 1 (2018) - License Number 78001028
2. StandardsMark License AS/NZS 2208: 1996 - License Number SMK41109
3. Safety Glazing Certificate Council ANSI Z97.1 - 2015 & CPSC 16 CFR 1201 - License Number 8344 & 8355

STORAGE

GLAS**SHIELD (HST)** requires storage in a covered, dry area, unexposed to rain and dust. Each sheet of GLAS**SHIELD (HST)** should be separated with the help of non-adhesive transferring cork/rubber pads. Prolonged storage without separation or with paper separation may result in permanent and irreversible damage to the glass surface. This is even more critical for coated surfaces.