

CORE

Heat-Strengthened Glass SSG® DuraGlas-HS

Singapore Polytechnic, Singapore



PRODUCT FEATURES

LOW RISK OF SPONTANEOUS BREAKAGE

Risk of spontaneous breakage due to nickel sulphide formation is almost non-existent in SSG® DuraGlas-HS.

MECHANICAL STRENGTH

SSG® DuraGlas-HS is approximately two times mechanically stronger than annealed glass of the same type and thickness.

OPTICAL CLARITY

A lower processing temperature allows SSG® DuraGlas-HS to have lesser optical distortion as compared to a fully tempered glass.

TEMPERATURE RESILIENCE

SSG® DuraGlas-HS can withstand temperatures up to 295°C. It also provides resistance to thermal stress associated with high-performance glazing materials such as tinted glass, reflective glass and low emissivity glass in insulating units and spandrels.

USES AND APPLICATIONS

- Commercial complexes • Façades
- High-rise buildings • Insulated glass units • Residential buildings
- Spandrel glass • Windows

High-performance glazing materials and coated glass such as reflective glass and low emissivity glass gives rise to thermal stresses. SSG® DuraGlas-HS therefore provides resistance to thermal stresses, reducing the risk of thermal breakage.

SSG® DuraGlas-HS breaks into larger pieces and does not crumble into smaller fragments like its tempered counterparts. It allows the glass to remain in the frame as the weight of the broken glass is supported by neighbouring pieces on all four sides. In addition, spontaneous breakage due to nickel sulphide formation is almost non-existent in SSG® DuraGlas-HS. These features make

SSG® DuraGlas-HS a good option for building façades and windows.

THE TECHNOLOGY

Glass in a heat-strengthening process undergoes a lower cooling pressure than that used in the tempering process, resulting in SSG® DuraGlas-HS with intermediate strength between float and tempered glass. The lower processing temperature causes SSG® DuraGlas-HS to have a flatter surface, hence lesser optical distortion and higher adherence to interlayers when used in laminated products.

Note: In fully tempered and heat-strengthened glass, a strain

pattern may be visible under certain light conditions. Such patterns are characteristic of thermally-processed glass and should not be mistaken as a defect.

APPLICABILITY

Monolithic heat-strengthened glass can be used in laminated or insulated glass to provide further mechanical strength and safety. SSG® DuraGlas-HS is also available with ceramic fritting (SSG® DuraScreen) and Low Emissivity coatings.

SPECIFICATIONS : Production Sizes

Glass Thickness (mm)	Minimum Size (W/mm x H/mm)	Maximum Size (W/mm x H/mm)
3 to 4	300 x 300	2,438 x 4,000
5		2,438 x 5,100
6 to 12		2,500 x 5,700