FireLite Information Sheet

PRODUCTS

FireLite 5mm, FireLite-SF, FireLite-SL, and FireLite-SU

FireLite is a ceramic glass material specifically developed for use as a fire-resistant glazing. It is not a conventional glass, and does not show the typical glass vulnerabilities to cracking and softening in fire.

FireLite has a special composition and atomic structure that make it especially resilient against high fire temperatures, flames, thermal stress and thermal shock.

For example: FireLite has been taken in a standard fire resistance test to 260 minutes– i.e. to 1160oC – without significant visible change.

DISTINCTIVE FEATURES

- **NO** cracking in fire
- **NO** softening in fire conditions
- **NOT** sensitive to water

SCOPE OF APPLICATION

- Door vision panels
- Glazed door screens
- Facade glazing and internal glazed partitions or walls.
- Horizontal or inclined overhead glazing.

FireLite is the ideal combination with sprinklers in specifically designed sprinkler-glazing fire resistant walls (to remove the risk of premature failure due to incomplete water cover during fire).

(In all cases, applications should be in accordance with tested system details.)

CERAMIC GLASS LTD
9MM FIRELITE-SL
E240 EN1748-2
2 (B) 2 EN12600

CERAMIC GLASS LTD
5MM FIRELITE-SF
E240 EN1748-2
3 (B) 3 EN12600

CERAMIC GLASS LTD
5MM FIRELITE
E240 EN1748-2

Fire resistance test classification times from 30 minutes to 240 minutes (including 60, 90, 120 minutes), either BS 476 Part 22 or BS EN 1364-1

- Thermal shock resistance - excellent (i.e. sudden temperature increase)
- Thermal stress resistance - excellent (i.e. from cold to hot in the same pane)
- High softening and melting points (above fire temperatures)
- All fire-resistant framing types (e.g. metal and timber)
- Standard fire-resistance glazing systems
- No special system edge precautions necessary

Hose stream resistance
FireLite at only 5mm thick succeeds in surviving the USA hose stream test for fire protection glazing, and it is officially certificated for that by Underwriters Laboratories (UL). This test is intended to evaluate resilience against both the momentum and temperature shock of a water hose stream under firefighting conditions.

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PHYSICAL PROPERTIES

- Thickness 5mm
- Weight 11.7 kg/sqm (for comparison, 5mm float glass 12.5 kg/sqm)
- Light transmission 88%
- Light reflection 9% (typical of clear glass)
- U value 5.8W/m2K
- Surface visual quality typical of other glass products
- Durability as standard glass (but with particular chemical resistance due to composition)
- Distinctive characteristic champagne tint (looking along plate maximum dimensions)
- Linear thermal expansion coefficient -0.3x10-6 /oC (compared with float glass, for example, +8.5 x10-6/ oC)

PRACTICAL FEATURES

- Easy to stock and handle
- Easy to cut using a standard glass cutter
- Surface visual quality comparable with other glass products
- Maximum available plate size 1266mm x 2490mm

GENERAL GLAZING INSTRUCTIONS

FireLite does not require special glazing edge considerations. It is not restricted by maximum edge cover limits as applies to some fire-resistant glass types. Commonly available inert ceramic fibre sealing gaskets are typically used, but all types of glazing sealants can be considered (including closed cell foam types).

PRODUCT TYPES

FireLite 5mm

FireLite-SF: 5mm product with safety film for impact safety, class EN 12600 3(B)3
FireLite-SL: 9mm product using laminated interlayer for impact safety, class EN 12600 2(B)2
FireLite-SU: standard double glazed versions

GGF Glass and Glazing Federation
SIA STOVE INDUSTRY ALLIANCE
[FIRELITE]
CERAMIC GLASS LTD

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