

Glossary



Acid-etched glass

Satin-like, translucent glass manufactured by acid-etching one surface of the glass (see sgg SATINOVO).

Adhesive glazing / adhesively glazed

See "Structural sealant glazing".

Air filled cavity

See "Cavity".

Airspace

See "Cavity".

Annealed glass

See "Float glass". During the float glass manufacturing process, the hot glass is gently cooled in the "annealing lehr", which releases any internal stresses from the glass to enable the cutting and further processing of the glass post manufacture.

Anti-reflective glass

Surface-coated glass which minimises light reflectance and appears therefore to show virtually no visual reflection (see sGG VISION-LITE).

Arrissed

A basic form of edgeworking, by removing the sharp edges of cut panes of glass.

Aspect ratio

The ratio of the longer side of a pane to its shorter side.

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Β

Balustrade

A barrier or form of guarding, generally waist-height, which protects people from falling where there is a change in floor level, for example stairs and balconies.

Bead

A strip of wood, metal or other suitable material attached to the glazing surround to retain the glass.

Bedding

The glazing material which seals the glass and beads in the rebate. Back bedding is the glazing material between the face of the glass and the rebate upstand after the glass has been pushed into position. Front bedding is the glazing material between the face of the glass and the bead.

Bevelled

A decorative form of edgeworking, where the edges of a glass pane are ground and polished smoothly at an angle.

Blast-resistance

The ability of a material to withstand blast pressure from an explosion; whether intentional or accidental (see sgg STADIP PROTECT).

Body-tinted glass

Transparent float glass with a consistent colour throughout its depth (see seg PARSOL).

Bolted glass assemblies/assembly systems

Structural bolted glazing systems incorporating fixed or articulated bolts.

Bow

A form of distortion in toughened and heat strengthened glass, inherent to the manufacturing process.

British Standards

Codes of Practice offering guidance and recommendations on what is considered current best practice. Applicable to the whole of the UK and in most cases adopted by the Republic of Ireland.



BSI

The British Standards Institution.

Building Regulations

Building Control legislation laid down by Acts of Parliament.

Bullet-resistant glazing

Security glazing affording a defined resistance against the firing of specified weapons and ammunition (see sGG STADIP PROTECT).

Butt joint

Joint between edges of adjacent panes, vertical or inclined, and usually weathered with a suitable sealant.

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С

Cap

Strip of material which may retain infilling, fitted over a glazing bar to impede direct water penetration.

Capping

A sealant applied to fill the gap above a strip glazing material, positioned between the glass and the rebate upstand and/or bead.

Cavity

The void/space formed by the spacer bar between the two panes of glass in doubleglazed units, and nowadays is generally filled with argon for enhanced thermal insulation.

CE Marking

When the European marking is officially in force, any glass product that is used in construction and buildings, which is sold within the European Union, must bear the label. This label can be stamped onto the product, the packaging or the accompanying commercial documents.

Ceramic frit

See "Enamelled glass".



Chamfer

A small bevelled edge connecting two surfaces. If the surfaces are at right angles the chamfer will typically be symmetrical at 450, similar in appearance to arrissing.

Cill

See "Sill".

CNC

Computer controlled cutting. Sizes are inputted into a computer and then the glass is cut automatically.

Cold zones

Areas in close proximity to glazing, especially single-glazing, where exchange of heat by radiation can lead to the sensation of feeling cold or draughts.

Colour rendering

Term given to the change in appearance of the natural colour of a material/object due to the colouration effect of light being transmitted through or reflected by the glass onto any given surface.

Condensation

Process whereby gas or vapour turns into liquid by cooling.

Containment

Glass used in guarding situations designed to withstand specified loads and prevent people from falling.

Counter sunk

A hole drilled through the glass so that when a screw or bolt is inserted the head of the fixing is flush/level with the surface of the pane. The fixing must be isolated from the glass by nylon or soft lining material; there must be no glass-to-metal contact.

Critical locations

See "Safety critical locations".

Cullet

Recycled glass used in the manufacture of clear float glass.



Curtain walling

Non-load bearing, typically aluminium, facade cladding system, forming an integral part of a building's envelope

Curved glass

Glass, which is curved in form, produced by heating it to its softening point, so that it takes the shape of the mould. Annealed, toughened and laminated glass is available in curved form (see sgg CONTOUR).

Cut-out (internal and external)

See "Notch".

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D

Daylighting

The reorientation of daylight by means of systems incorporating reflective and adjustable surfaces or grilles. Daylighting systems re-direct natural light, distributing diffused light in a room space and prevent strong areas of glare (see sgg LUMITOP).

dB

Abbreviation of decibel, the unit of measurement of sound, measured against a logarithmic scale. A-weighted decibels [dB(A)] are "weighted" for the response of the human ear.

Deflection

The term applied to the physical displacement of glass from its original position under load.

Desiccant

Generally a pure molecular sieve- or silica gel-based product, the desiccant is placed within the cavity spacer bar of double-glazed units in order to dehydrate or to remove any residual moisture in the unit.

Distance pieces

Glazing blocks located between glass, rebate upstand and bead to maintain distance, ensure adequate depth of glazing materials and constrain movement of the glass under wind load.



DLF

"Decoupe Largeur Fabrication", SAINT-GOBAIN GLASS reference for production width sized glass sheets i.e. 3210 x 2250/2200 etc.

Double Glazed Unit (DGU)

Two panes of glass, separated by a cavity and hermetically sealed in a factory, to provide thermal and/or acoustic insulation.

DPI

Abbreviation of "Dots Per Inch"- a printing term referring to the resolution of a printed image.

Drained and ventilated

Frame types which help prevent prolonged contact between the edge seal of doubleglazed units and moisture.

Dry glazed systems

A term applied to glazing systems that use gaskets to retain the infill material (glass).

Dual sealed system

A primary seal of polyisobutylene and a secondary seal of polysulphide, polyurethane or silicone ensure the effective and durable seal of double-glazed units.

Dubbed corner

The removal or blunting of sharp corner edges, often done in conjunction with arrissing, again it might be referred to as a chamfered corner.

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Ξ

E, EI, EW

Symbols which, combined with a period of time, define the classifications for fire resistance:

E - Ability of a glazed material to prevent the spreading of flames or hot gases (integrity).

EI - ability of a glazed material to limit heat transfer to the unexposed surface (integrity and insulation).



EW - ability of a glazed material to reduce the emission of radiated heat or energy and to provide a heat barrier for persons (radiation).

Edge clearance

The distance between the edge of the glass and rebate.

Edge cover

The distance of the edge of the glass and sight line.

Edge seal

See "Dual sealed system".

Effective U-value

See "Energy balance".

Emissivity

Emissivity is a surface characteristic of a material. It is the relative ability of a surface to absorb and emit energy in the form of radiation. Low-emissivity (Low-E) coatings reduce the normally relatively high surface emissivity of the glass. The coatings are mainly transparent over the visible wavelengths but reflect long wave infra-red radiation towards the interior of the building. The result is greatly reduced heat loss (see sgg COOL-LITE K, SK and sgg PLANITHERM).

EΝ

"European Normes" or standards, which are gradually harmonising with and superseding British Standards.

Enamelled glass

One face of the glass is enamelled, by applying a ceramic frit that is then fired into the surface of the glass at high temperature. Depending on the cooling regime employed, this then results in either a heat-strengthened or thermally toughened glass (see sGG EMALIT EVOLUTION).

End cap

Stock glass with wooden packaging on either end to protect it. Commonly used on patterned glass.

Energy Absorptance (A)

The percentage of solar radiant heat energy absorbed and re-emitted externally and internally by the glass.



Energy balance

The difference between the amount of heat gain and heat loss through glazing. Also known as the "Effective U-value".

Energy Reflectance (RE (external) and RI (internal))

The percentage of solar radiant heat energy reflected by glazing.

Energy Transmittance (T)

The proportion of solar radiant heat energy which is transmitted directly through glass (formerly abbreviated to DT (Direct Transmittance)).

Enhanced thermal insulation

Conventional double glazing provides thermal insulation. Double-glazing comprising a low-emissivity glass provides enhanced thermal insulation.

External glazing

Glazing in which one or both sides are exposed to the outside.

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F

Façade

The front or face of a building.

Face

The term used to describe the surfaces of the glass in numerical order from the exterior to the interior. The exterior surface is always referred to as face 1. For a double-glazed unit, the surface of the outer pane facing into the cavity is face 2, the surface of the inner pane facing into the cavity is face 3 and the internal surface of the inner pane is face 4. With triple glazing there will be a face 5 and 6, with face 6 becoming the roomside face.

Face clearance

The distance between the face of the glass, the rebate upstand and upstand face of a bead. Also known as front clearance and back clearance.

FFL

Abbreviation for finished floor level.



Fin

A vertical support made entirely of glass between two abutting glass panes, sometimes known as a glass mullion.

Finger pull

Finger pulls are a recess or partial depth slot a few millimetres deep into the body of a pane of glass. The glass is often toughened and usually incorporated into a sliding glass door system in display, kitchen or bathroom cabinets.

Fire resistance/fire-resisting

The ability of a building material to provide an effective barrier against the passage of flames, smoke and toxic gases and/or to reduce the transmittance of radiated heat (see sgg CONTRAFLAM, sgg CONTRAFLAM LITE, sgg SWISSFLAM, sgg SWISSFLAM LITE, sgg CONTRAFLAM STRUCTURE, sgg PYROSWISS, sgg VETROFLAM.

Flameproof

Product which meets the two fire resistance criteria E, EW and EI: flameproof and impervious to hot toxic gases or flammable materials (see above)

Flashing

Strip of impervious material, usually metal, dressed or fitted in order to exclude water from the junction between a frame and adjacent building elements.

Float glass

High quality, transparent flat glass manufactured by means of the float tank procedure that is, floating molten glass on a "tin-bath" at extremely high temperature (see sgg PLANILUX).

Four edge glazing system

Infilling (glass) is supported continuously on all four edges by a suitable framing/glazing system

Frame terminology

Below is a typical window frame and the terminology used to describe the various parts/elements:





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Free path

Referred to in BS 6180 relating to guarding and balustrading. It is the unhindered distance a body can travel in a direction perpendicular to the surface of a barrier.

Free standing barrier

A structural barrier where the glass is fixed to the structure, either adhesively or by clamping, along its bottom edge and has a continuous handrail attached to the top edge. The glass is designed to withstand all the imposed design loads and there are no balusters.

Frequency

The rate of vibration of sound waves per second, measured in Hertz.

Full height barrier

Where glass forms part or whole of a wall element it is classed as a full height barrier if any part of the glass is below the minimum barrier height, which is usually taken to be 800mm from finished floor level.

Fusing

The fusion of different coloured glasses at high temperature to attain a collage-effect in glass.

G

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G-Value

Abbreviation or symbol for "Solar factor" according to BS EN 410 (formerly abbreviated to SF (Solar Factor) or TT (Total Transmission)).

Gaskets

Pre-formed glazing materials used for bedding or securing glass and to separate the glass from the frame or fixings.

Glazing

The securing of glass into prepared openings. It also refers to the collective elements of a building comprising glass, frame and fixings.

Glazing bead

See "Bead".



Glazing materials

The materials required for the glazing of glass products such as glazing compounds, tapes, sealants and gaskets.

Glazing stop

Fitting attached to the lower end of a glazing bar to prevent the infilling (glass) from sliding/slipping.

Glazing/Glass size

The dimensions of the cut glass ready for installation, clearances having been allowed. As a general rule the industry gives width first and height second (w x h).

Guarding

The prevention of people falling wherever there is a change in floor level by means of a permanent barrier.

Η

Head

Top member of a frame, usually horizontal.

Heat Soak Test (HST)

This is an additional form of heat-treatment, which is carried out after the thermal toughening process in order to reduce the risk of spontaneous breakage of toughened glass in service due to nickel sulphide inclusions (NiS) (see sgg SECURIT HST, sgg SECURIPOINT).

Heat-formed glass

Glass, which is heat-formed at a very high temperature, see "fusing".

Heat-strengthened glass

Glass which has been heat-treated in order to increase its mechanical strength and resistance to thermal breakage. It has fracture characteristics similar to that of ordinary annealed glass and is not classed as a safety glass (see sgg PLANIDUR).

Heat-treated/heat treatment

A generic term for glass that has been heat-strengthened or thermally toughened in order to increase its mechanical strength and resistance to thermal breakage (see sGG SECURIT / sGG SECURIPOINT).



Heel bead

A bead of sealant applied between the edge of the glass and the rebate angle.

HIAB vehicle

Vehicle with lifting equipment attached.

Horizontal line load

A linear uniformly distributed load applied horizontally at a given height above finished floor level (e.g. 1100mm). Most often associated with balustrade and guarding applications.

Horizontal toughening

A thermal toughening process whereby the glass is toughened horizontally and supported by rollers.

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Impact performance/resistance

When related to safety glazing this is the classification of safety glass when tested to BS EN 12600.

П

Inclined glazing

Glazing that is inclined at an angle between horizontal and 75° from horizontal.

Infill panel

The term applied to the glass panel underneath the handrail in a barrier that provides containment, but no structural support to the main frame of the barrier.

Infilling

Sheet material that occupies the space between supporting members.

Inner pane

The pane of a double-glazed unit which faces the interior of a building.

Inside glazed

External glazing, where the glass is installed from within the building.



Insulating glass

Fire-resisting glass fulfilling the criterion of E (integrity) and I (insulation).

Insulating Glass Units (IGU)

See "Double Glazed Unit".

Integrity

The ability of glazing to remain complete and to continue to provide an effective barrier to flames for example.

Interlayer

The term applied to the material used in laminated glass to bond the glass leaves together. It can be either PVB, cast-in-place resin or intumescent.

Internal glazing

Glazing in which neither side is exposed to the outside of the building.

Intumescent

The property of materials that swell and char when exposed to radiated heat, such as that from a fire, and forms an insulating barrier.

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Κ

K value

Former name for U-value on the Continent.

Kerafix tape

An intumescent tape used for glazing fire rated glass.

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Laminated glass/laminate/laminating

Two or more sheets of annealed or heat treated glass are separated by one or more plastic interlayers (normally PVB) and subjected to heat and pressure, in order to ensure perfect adhesion between constituent elements (see sgg STADIP, sgg STADIP PROTECT).



Lehr

The annealing chamber on a float glass manufacturing line where the molten glass is subject to controlled cooling to obtain annealed glass, free from internal stresses, which can then be cut or worked.

Lehr End Size (LES)

Production width sized glass sheets i.e. 3210x2550/2250/2200 etc.

Light Reflectance (RE (external) and RI (internal))

The proportion of the visible spectrum that is reflected by the glass.

Light shelf

A "daylighting" device designed to redirect light towards the ceiling or back of the room.

Light Transmittance (T)

The proportion of the visible spectrum that is transmitted through the glass (formerly abbreviated to LT (Light Transmittance)).

Line load

See "Horizontal line load".

Loading

Generic term for the various loads, where relevant, exerted on a structure or elements of a structure including wind loads, snow loads, imposed loads for example those associated with accidental human impact, and dead loads such as self weight.

Location blocks

Small blocks of resilient material placed between the edges of the glass and frame to maintain edge clearance and to prevent relative movement between the glass pane and surround. Blocks used on the bottom edge of the glass are known as "setting blocks".

Long-wave shading coefficient (LWSC)

See "Shading coefficient".

Low iron

Referring to extra clear glass, which has reduced iron oxide content in order to lessen the green tinge inherent to ordinary clear float glass.



Low level glazing

See "Safety critical glazing".

Low modulus, neutral cure silicone

A low modulus material requires a low force to stretch it and will generally have a good elasticity and therefore good movement accommodation. A low modulus, neutral cure silicone should be recommended for use in 'wet' glazed systems.

Low-E/Low-emissivity/Low-emissive

See "Emissivity".

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Μ

Magnetically enhanced cathodic sputtering

See "Sputtered coating".

Main seal

See "Secondary seal".

Manifestation

This refers to any technique for making areas of transparent glazing more apparent and easily noticeable, to help prevent people from walking into it.

Mullion

A vertical framing section between glass panes.

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Ν

Nickel sulphide inclusion (NiS)

A rare, but naturally occurring impurity present in all glass that can, in certain circumstances, lead to spontaneous breakage of thermally toughened glass in service.

Non-insulating glass

Fire resisting glass, providing the criteria of E (integrity) only.



Non-vision area

See "Spandrel panels".

Notch

Notches and cut-outs are processes whereby areas of glass are removed from a sheet of glass, such an operation might be used where hinges or handles are required on frameless glass doors (there are limitations that apply and advice should be sought).

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0

Octave band

The spectrum of sound is measured in bands of frequencies, an octave band is the band of frequencies in which the upper limit of the band is twice the frequency of the lower limit.

Off-line coating

See "Sputtered coating".

On-line coating

See "Pyrolytic coating".

Opacified/Opaque

Glass which has been fully enamelled or painted on one side to make it non-transparent.

Outer pane

The pane of a double-glazed unit which faces the exterior of a building.

Outside glazed

External glazing, where the glass is installed from the outside of the building.

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Pack of glass

Multiple sheets of glass of a specified size and type that are stacked against each other for transportation. They are not wrapped or packed in anything.

Patent glazing (PG)

A non-load bearing, drained and ventilated framing system, used predominantly in overhead glazing.

Patterned glass

Translucent patterned glass, manufactured by rolling heat-softened glass between embossed cylinders (see sGG DECORGLAS, sGG MASTERGLASS).

Photocatalysis

Ability of a material to breakdown organic compounds on a surface using UV radiation (see sgg BIOCLEAN).

PLF

"Plateau Largeur Fabrication", SAINT-GOBAIN GLASS reference for jumbo-size flat glass sheets i.e. 6000mm x 3210mm dimensions.

Point load

An imposed concentrated load acting on a square contact area of 50mm sides. Most often associated with balustrading and guarding applications and also to glass used in floors.

Pointed/Pointing

A roughly 'triangular' fillet of compound formed on the platform of the rebate in front of the glass.

Polished edge

A worked, smooth, bright surface to the edge of the glass with either a flat or profiled finish.

Pre-shimmed tape

A preformed tape incorporating a continuous EPDM shimcord.



Preformed tape

A butyl strip on fast release backing material.

Primary seal

A butyl-based sealant, for example polyisobutylene, applied to the edges of the spacer bar during assembly into IGUs, to ensure a watertight and airtight seal around the perimeter of the unit.

Primer

A coating applied to a surface to improve the adhesion of compounds or sealants.

PVB (Polyvinyl Butyral)

The plastic interlayer incorporated into laminated glass in order to ensure good adhesion and the mechanical and safety breakage characteristics of the glass.

Pyrolysis

See "Pyrolytic coating".

Pyrolytic coating/coated

A specialist metallic coating is applied to the glass "on-line" during the float glass manufacturing process. The high temperatures involved result in the metallic oxides fusing into the surface of the glass through pyrolysis and effectively forming part of the glass (see sGG ANTELIO).

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R

RA

The abbreviation for the sound reduction index when the spectrum adaptation term C is applied to the single number weighted sound reduction index (RW) using pink noise as a sound source.

RA,tr

The abbreviation for the sound reduction index when the spectrum adaptation term Ctr is applied to the single number weighted sound reduction index (RW) using traffic noise as a sound source.



Radiation

Depends on the context in which it is being used. Normally refers to electromagnetic radiation. It is also used in terms of fire protection, see "fire resistance" and it is one of the ways in which heat can be transferred.

Radius corner

Either an internal or external rounded cut edge on or within a pane of glass.

Rebate

The section of the frame surround which forms an angle into which the glass is placed and held.

Reflective coating/coated

A metallic coating is applied to one side of the glass in order to significantly increase the amount of reflection by the glass of both the visible and infra-red (light and heat) range of the electromagnetic spectrum.

Road traffic noise

See "RA,tr".

Robustness

Certain thicknesses of annealed glass is considered suitable for use in large areas, in safety critical locations, for certain non-domestic situations such as shopfronts, showrooms, offices and public buildings. This is referred to in Building Regulations Approved Document N as robustness.

Roller pick-up/pluck

A phenomenon that occurs on toughened glass.

Rollerwave

An optical phenomenon, generally noticed in reflection, caused by contact between glass and rollers in the horizontal toughening process.

Run-up

See "Free path".

Rw

See "Weighted noise reduction".

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S

Safety critical locations

Identified by Approved Document N and BS 6262 part 4 and defined as glazed sections of a door, wall or other part of a building most likely to be subject to accidental human impact.

Safety glass

Glass which either must not break or must break safely.

Screen-printing/screen-printed

Enamelling the surface of a sheet of glass, either partially or completely, by means of a silk-screen and thermal toughening (see sGG SERALIT EVOLUTION).

Self-cleaning glass

Property of glass with a photocatalytic and hydrophilic coating. The coating harnesses the dual-action of UV light and rain (or water) to break down organic dirt and reduce the adherence of mineral material. The glass stays cleaner for longer and is easier to clean (see sGG BIOCLEAN).

Setting blocks

See "Location blocks".

Shading coefficient (SC)

The g-Value (SF or TT) of a glass relative to that of 3mm clear float glass (0.87) and is used as a performance comparison. The lower the shading coefficient number, the lower the amount of solar heat transmitted. The short wave shading coefficient is the direct transmittance (T) of the glass as a factor of the solar factor or total transmittance (g) of 3mm clear float glass (T \div 0.87).

The long wave shading coefficient is the internally re-radiated energy that the glass has absorbed as a factor of the g-Value (SF or TT) of 3mm clear float glass. It is determined by subtracting the direct transmittance (T) from the (g) of the subject glass and then dividing by the (g) of 3mm clear float glass (g-T \div 0.87).

Short wave shading coefficient (SWSC)

See "Shading coefficient".

Sight line

The perimeter of the opening that admits daylight.



Sight size

The actual size of the opening that admits daylight.

Silicone seal

Where the edges of double-glazed units are unframed and exposed to direct sunlight, they are sealed with silicone for UV resistance.

Sill

Bottom member of a frame, usually horizontal.

Silvering or silvered

A process used in the manufacture of mirrors, whereby a silver coating is applied to one surface of the glass (see sGG MIRALITE EVOLUTION).

Sloped glazing

See "Inclined glazing".

Snow load

An imposed load exerted onto a structure or element of a structure by formation of snow.

Solar factor g

The percentage of total solar radiant heat energy transmitted through glazing (the sum of energy transmitted directly and energy absorbed and re-emitted to the interior).

Solar heat gain

Solar radiant heat, transmitted or reemitted by glazing into a building, contributing to the build-up of heat.

Sound reduction index (R)

A laboratory measure of the sound insulating properties of a material or building element in a stated frequency band.

Spacer bar

Generally an aluminium bar along all edges of a double-glazed unit, filled with desiccant, which separates the two panes of glass and creates a cavity.



Spall

Small fragments of glass that are ejected from the surface of a laminated glass sheet when the opposite surface is impacted.

Spandrel or spandrel panel

Glass cladding panels used in non-vision areas of a facade, commonly in curtain walling. They generally comprise an enamelled or opacified glass to conceal building structure elements such as the edge of floor slabs.

Spectrophotometric performance/properties

The collective term for the transmittance, absorptance and reflectance properties of glass of solar radiant heat and light energy.

Sputtered coating/coated

An advanced metallic coating is applied to the glass "off-line" or after the float glass manufacturing process, by a technique called magnetically enhanced cathodic sputtering under vacuum conditions.

SSS

Reference for standard stock sizes of glass.

Stability

The ability of the specimen as a whole (not just the glass) to remain in position in its opening providing an effective barrier to fire (now normally referred to as "integrity").

Stepped-edge unit

The edges of the double-glazed unit are not flush. One pane is larger and overlaps the other, to enable their use in roof glazing for example.

Stock size

Manufactured glass products are available in standard sheet sizes: jumbos (PLF), lehr end sizes (LES) and standard stock sizes (SSS).

Structural glazing

Glass acting as a structural support to other parts of the building structure, for example glass fins. It can also refer to glass that is fixed by means of bolted connectors where the glass is not acting as a structural element.

Structural sealant glazing

An external glazing system where the glass is bonded to a carrier frame without mechanical retention.



Supporting member

An element of a glazing system/frame that supports and retains the edge of an infilling (glass).

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Т

Tempered glass

See "Thermally toughened glass".

Textured glass

See "Patterned glass".

Thermal break

A type of metal frame that incorporates an isolating material of low thermal conductivity located between the inner and outer parts of the frame in order to reduce the rate of heat loss through the frame.

Thermal fracture/safety

See "Thermal stress".

Thermal stress

The term used to describe the internal stresses created when a pane is subjected to variations in temperature within the body of the glass. If the temperature differentials in the glass are excessive, the glass may crack. This is referred to as thermal breakage or fracture.

Thermally insulating glazing

Double or triple glazed units provide thermal insulation.

Thermally toughened glass

Glass that has been subjected to a controlled heating and cooling process, in order to significantly increase its resistance to mechanical and thermal stress. Through the thermal toughening process, the glass attains its safe-breakage characteristics (see sGG SECURIT, sGG SECURIT HST, sGG SECURIPOINT).

Tight size

The actual size of an opening into which glass is to be glazed and is measured from the rebate platform.



Tinted glass

See "Body-tinted glass".

Tinted interlayer

A coloured pvb interlayer between two or more panes of glass.

Total transmittance

See "Solar factor".

Toughened glass

See "Thermally toughened glass".

Translucent

Transmitting light but obscuring clear vision.

Transom

A horizontal framing bar between glass panes. It can also be used to refer to a fanlight over a door.

Transparent

Clear, permitting vision.

Two edge glazing system

Infilling (glass) is supported continuously on only two opposite sides of its four edges by a suitable framing/glazing system.

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U

U-value

This is a measure of the rate of heat loss of a building component. It is expressed as Watts per square metre, per degree Kelvin, W/m^2K .

Uf-value

This is a measure of the rate of heat loss through the frame element of a window or door or other frame element. It is expressed as Watts per square metre, per degree Kelvin, W/m^2K . It takes no account of the glass or spacerbar/edge seal (if an IGU is installed).



Ug-value

This is a measure of the rate of heat loss through a single pane of glass or an IGU. It is expressed as Watts per square metre, per degree Kelvin, W/m²K. It is also known as a "centre pane" and takes no account of the spacerbar/edge seal (if it is an IGU) or any framing material it is installed into.

Uniformly distributed load (UDL)

Pressure exerted uniformly across a pane of glass, for example a wind load.

UV transmittance

The percentage of solar energy in the form of ultra-violet radiation transmitted by glazing.

Uw-value

This is a measure of the rate of heat loss through the "whole window". It is expressed as Watts per square metre, per degree Kelvin, W/m²K. It takes account of all elements forming the window, glass, spacerbar/edge seal (if it is an IGU) and the framing material itself.

V

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Vertical glazing

Glazing which is either true vertical, or within 15° either side of true vertical.

Visible spectrum

Part of the electromagnetic spectrum, with wavelengths from approximately 380nm to 780nm, to which the human eye is sensitive. The combined wavelengths of the visible spectrum result in "white light".

Vision area

Areas of a facade which allow vision from the interior to the exterior.

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W

Warm-edge

Refers to the reduction of the thermal bridging effect around the perimeter of doubleglazed units by replacing the conventional aluminium cavity spacerbar with a low heat-conductive thermally insulating cavity spacer (see sGG SWISSPACER).

Weathering

Strip material designed to control the passage of water and/or air through a joint in a glazing system or where a glazing system abuts other elements.

Weighted noise reduction

A single figure rating for the sound insulation of building elements. Includes a weighting for the human ear and measures actual sound transmittance.

WER (Window Energy Rating)

Window Energy ratings are a way for the consumer to reliably compare one product with another and make informed decisions regarding the energy performance of a window based on data provided on a "rainbow" label. The label gives a rating, A (best) to G (worst), based on the performance of the "whole window" (frame and glass) and therefore allows fair comparison of one window type with another.

Wind load

The pressure, positive or negative, acting on an external surface of a building caused by the direct action of the wind. Commonly expressed as N/m².

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