

MINIMAL FRAME
PROJECTS

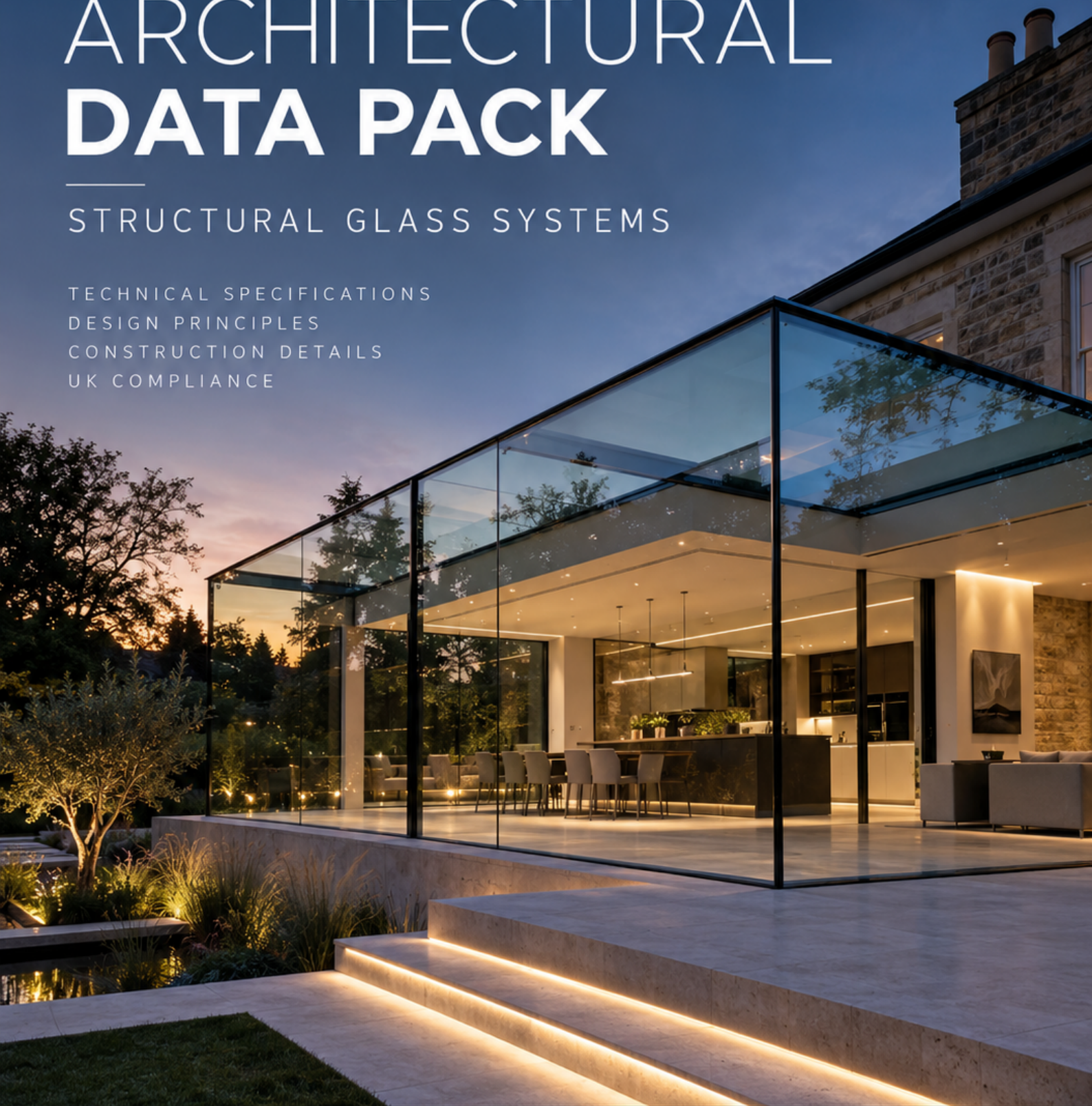
ARCHITECTURAL | RESIDENTIAL | COMMERCIAL

DESIGN
ENGINEER
SUPPLY
INSTALL

ARCHITECTURAL DATA PACK

STRUCTURAL GLASS SYSTEMS

TECHNICAL SPECIFICATIONS
DESIGN PRINCIPLES
CONSTRUCTION DETAILS
UK COMPLIANCE



GLASS ROOFS
& EXTENSIONS



STRUCTURAL
GLASS FLOORS



GLASS BALUSTRADES
& STAIRCASES



FIRE-RATED
GLAZING



TECHNICAL DATA
& SPECIFICATION

01 Regulatory hierarchy and specification accountability

TECHNICAL BASIS AND DESIGN INTENT

The Building Regulations 2010 impose functional requirements in England. Approved Documents describe recognised approaches, but are not a substitute for demonstrating that the particular building satisfies the requirements. For structural glazing, Part A, B, C, K, L and O may each influence a single junction. The correct route depends on the work type, building use and the applicable transitional arrangements.

PROJECT-SPECIFIC REQUIREMENTS

Begin with a written compliance matrix identifying the applicable nation, project type, building control route, responsible designer and revision of each statutory guidance document. Do not describe an individual product as Building Regulations approved without an appropriate project-specific basis.

DESIGN REVIEW MATRIX

Review item	Evidence or decision required
Design assumption	The Building Regulations 2010 impose functional requirements in England.
Verification	Approved Documents describe recognised approaches, but are not a substitute for demonstrating that the particular building satisfies the requirements.
Interface	For structural glazing, Part A, B, C, K, L and O may each influence a single junction.
Specification	The correct route depends on the work type, building use and the applicable transitional arrangements.
Inspection	Begin with a written compliance matrix identifying the applicable nation, project type, building control route, responsible designer and revision of each statutory guidance document.
Handover	Do not describe an individual product as Building Regulations approved without an appropriate project-specific basis.

ARCHITECT / ENGINEER COORDINATION

For this topic, the architect should issue the performance intent and coordinated geometry; the glazing specialist should return a location-specific proposal with traceable evidence; the structural engineer should confirm load paths and interfaces; and the responsible compliance team should establish the applicable approval route. Unresolved assumptions must remain identified in the design risk register.

STATUS: Design guidance only. This page does not certify a glazing product, fire-rated assembly, calculation or construction junction.

02 Competence, design responsibilities and Building Control

TECHNICAL BASIS AND DESIGN INTENT

The architect normally defines geometry and performance intent; the structural engineer establishes actions and structural interfaces; the specialist glazing designer designs glass and supports; the installer verifies substrate and as-built tolerances. These functions may be combined contractually but their responsibilities must remain explicit.

PROJECT-SPECIFIC REQUIREMENTS

Record designer appointments, design assumptions, checking arrangements, hold points and who approves substitutions. The building control body does not design the glazing and its involvement does not transfer the designers duties.

DESIGN REVIEW MATRIX

Review item	Evidence or decision required
Design assumption	The architect normally defines geometry and performance intent; the structural engineer establishes actions and structural interfaces; the specialist glazing designer designs glass and supports; the installer verifies substrate and as-built tolerances.
Verification	These functions may be combined contractually but their responsibilities must remain explicit.
Interface	Record designer appointments, design assumptions, checking arrangements, hold points and who approves substitutions.
Specification	The building control body does not design the glazing and its involvement does not transfer the designers duties.

ARCHITECT / ENGINEER COORDINATION

For this topic, the architect should issue the performance intent and coordinated geometry; the glazing specialist should return a location-specific proposal with traceable evidence; the structural engineer should confirm load paths and interfaces; and the responsible compliance team should establish the applicable approval route. Unresolved assumptions must remain identified in the design risk register.

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03 GGF, CWCT, BSI, FENSA and certification boundaries

TECHNICAL BASIS AND DESIGN INTENT

GGF is a trade federation that publishes industry guidance. CWCT provides facade technical guidance and test methodologies. BSI publishes standards, including adopted European standards. UKAS accredits eligible conformity-assessment organisations. FENSA is a competent-person scheme for qualifying replacement window and door work in existing dwellings, not a general approval for new structural glass extensions.

PROJECT-SPECIFIC REQUIREMENTS

Ask for the actual technical guide, edition, test report, certificate, scope and any limitations. Membership, accreditation and product certification are different forms of evidence; none alone establishes compliance of a bespoke installed assembly.

DESIGN REVIEW MATRIX

Review item	Evidence or decision required
Design assumption	GGF is a trade federation that publishes industry guidance.
Verification	CWCT provides facade technical guidance and test methodologies.
Interface	BSI publishes standards, including adopted European standards.
Specification	UKAS accredits eligible conformity-assessment organisations.
Inspection	FENSA is a competent-person scheme for qualifying replacement window and door work in existing dwellings, not a general approval for new structural glass extensions.
Handover	Ask for the actual technical guide, edition, test report, certificate, scope and any limitations.

ARCHITECT / ENGINEER COORDINATION

For this topic, the architect should issue the performance intent and coordinated geometry; the glazing specialist should return a location-specific proposal with traceable evidence; the structural engineer should confirm load paths and interfaces; and the responsible compliance team should establish the applicable approval route. Unresolved assumptions must remain identified in the design risk register.

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04 Design basis: actions and combinations

TECHNICAL BASIS AND DESIGN INTENT

Structural glass is checked against actions appropriate to its location: wind pressure and suction, snow, maintenance and imposed loads, self-weight, impact, thermal effects and movements. BS EN 1990 and BS EN 1991 with the applicable UK National Annexes establish relevant design principles. Roof shape, parapets, local exposure and drift can control design.

PROJECT-SPECIFIC REQUIREMENTS

The design brief should identify characteristic actions, combination rules, load duration, consequence of failure, serviceability criteria and required residual capacity. Do not adopt a nominal wind or snow load from another project.

DESIGN REVIEW MATRIX

Review item	Evidence or decision required
Design assumption	Structural glass is checked against actions appropriate to its location: wind pressure and suction, snow, maintenance and imposed loads, self-weight, impact, thermal effects and movements.
Verification	BS EN 1990 and BS EN 1991 with the applicable UK National Annexes establish relevant design principles.
Interface	Roof shape, parapets, local exposure and drift can control design.
Specification	The design brief should identify characteristic actions, combination rules, load duration, consequence of failure, serviceability criteria and required residual capacity.
Inspection	Do not adopt a nominal wind or snow load from another project.

ARCHITECT / ENGINEER COORDINATION

For this topic, the architect should issue the performance intent and coordinated geometry; the glazing specialist should return a location-specific proposal with traceable evidence; the structural engineer should confirm load paths and interfaces; and the responsible compliance team should establish the applicable approval route. Unresolved assumptions must remain identified in the design risk register.

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05 Glass material families and their limitations

TECHNICAL BASIS AND DESIGN INTENT

Annealed, heat-strengthened and thermally toughened glass have different strength and fracture characteristics. Laminated safety glass retains fragments through interlayers but post-fracture performance varies markedly with temperature, duration, glass fracture pattern and support. Heat soaking reduces, but does not eliminate, spontaneous breakage risk associated with nickel sulphide inclusions.

PROJECT-SPECIFIC REQUIREMENTS

State glass product standards and declared properties; specify heat soaking where justified by risk assessment. Distinguish heat-strengthened glass from fully toughened glass and do not infer impact classification merely from a product name.

DESIGN REVIEW MATRIX

Review item	Evidence or decision required
Design assumption	Annealed, heat-strengthened and thermally toughened glass have different strength and fracture characteristics.
Verification	Laminated safety glass retains fragments through interlayers but post-fracture performance varies markedly with temperature, duration, glass fracture pattern and support.
Interface	Heat soaking reduces, but does not eliminate, spontaneous breakage risk associated with nickel sulphide inclusions.
Specification	State glass product standards and declared properties; specify heat soaking where justified by risk assessment.
Inspection	Distinguish heat-strengthened glass from fully toughened glass and do not infer impact classification merely from a product name.

ARCHITECT / ENGINEER COORDINATION

For this topic, the architect should issue the performance intent and coordinated geometry; the glazing specialist should return a location-specific proposal with traceable evidence; the structural engineer should confirm load paths and interfaces; and the responsible compliance team should establish the applicable approval route. Unresolved assumptions must remain identified in the design risk register.

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06 Laminated glass mechanics and interlayers

TECHNICAL BASIS AND DESIGN INTENT

A laminate is not automatically equivalent to a monolithic pane of the same total thickness. Composite action depends on interlayer shear stiffness, load duration, temperature, geometry and boundary conditions. Different interlayer chemistries and thicknesses can produce materially different stiffness and post-breakage response.

PROJECT-SPECIFIC REQUIREMENTS

Require a calculation method that explicitly treats laminate coupling and the appropriate load-duration/temperature case. Confirm edge exposure, moisture compatibility, sealants, support bite and long-term durability.

DESIGN REVIEW MATRIX

Review item	Evidence or decision required
Design assumption	A laminate is not automatically equivalent to a monolithic pane of the same total thickness.
Verification	Composite action depends on interlayer shear stiffness, load duration, temperature, geometry and boundary conditions.
Interface	Different interlayer chemistries and thicknesses can produce materially different stiffness and post-breakage response.
Specification	Require a calculation method that explicitly treats laminate coupling and the appropriate load-duration/temperature case.
Inspection	Confirm edge exposure, moisture compatibility, sealants, support bite and long-term durability.

ARCHITECT / ENGINEER COORDINATION

For this topic, the architect should issue the performance intent and coordinated geometry; the glazing specialist should return a location-specific proposal with traceable evidence; the structural engineer should confirm load paths and interfaces; and the responsible compliance team should establish the applicable approval route. Unresolved assumptions must remain identified in the design risk register.

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07 Strength verification: BS EN 16612

TECHNICAL BASIS AND DESIGN INTENT

BS EN 16612:2019 concerns determination of lateral load resistance of glass panes by calculation. Its applicability and limits must be checked for the actual element. Pane stress is influenced by geometry, glass treatment, edge quality, supports and load distribution. Local concentrations near holes, notches or point supports require suitable methods beyond simple plate assumptions.

PROJECT-SPECIFIC REQUIREMENTS

The calculation package should identify all panes, nominal and design thickness, strength parameters, load cases, support stiffness, partial factors, governing stresses and any additional verification outside the chosen standard.

DESIGN REVIEW MATRIX

Review item	Evidence or decision required
Design assumption	BS EN 16612:2019 concerns determination of lateral load resistance of glass panes by calculation.
Verification	Its applicability and limits must be checked for the actual element.
Interface	Pane stress is influenced by geometry, glass treatment, edge quality, supports and load distribution.
Specification	Local concentrations near holes, notches or point supports require suitable methods beyond simple plate assumptions.
Inspection	The calculation package should identify all panes, nominal and design thickness, strength parameters, load cases, support stiffness, partial factors, governing stresses and any additional verification outside the chosen standard.

ARCHITECT / ENGINEER COORDINATION

For this topic, the architect should issue the performance intent and coordinated geometry; the glazing specialist should return a location-specific proposal with traceable evidence; the structural engineer should confirm load paths and interfaces; and the responsible compliance team should establish the applicable approval route. Unresolved assumptions must remain identified in the design risk register.

STATUS: Design guidance only. This page does not certify a glazing product, fire-rated assembly, calculation or construction junction.

08 Serviceability and deflection criteria

TECHNICAL BASIS AND DESIGN INTENT

Deflection is not one universal $L/200$ rule. Limits must protect the glass, glazing bite, seals, finishes, adjoining construction, drainage falls, occupants and weather performance. Glass and its supporting steel, aluminium, timber or glass fins deform together; differential movement may be more important than absolute mid-span deflection.

PROJECT-SPECIFIC REQUIREMENTS

Set separate acceptance criteria for pane deflection, support movement, edge rotation, relative joint displacement and ponding risk. Document their source and justification for the particular roof, wall, floor or barrier.

DESIGN REVIEW MATRIX

Review item	Evidence or decision required
Design assumption	Deflection is not one universal $L/200$ rule.
Verification	Limits must protect the glass, glazing bite, seals, finishes, adjoining construction, drainage falls, occupants and weather performance.
Interface	Glass and its supporting steel, aluminium, timber or glass fins deform together; differential movement may be more important than absolute mid-span deflection.
Specification	Set separate acceptance criteria for pane deflection, support movement, edge rotation, relative joint displacement and ponding risk.
Inspection	Document their source and justification for the particular roof, wall, floor or barrier.

ARCHITECT / ENGINEER COORDINATION

For this topic, the architect should issue the performance intent and coordinated geometry; the glazing specialist should return a location-specific proposal with traceable evidence; the structural engineer should confirm load paths and interfaces; and the responsible compliance team should establish the applicable approval route. Unresolved assumptions must remain identified in the design risk register.

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09 Glass roofs: gravity, uplift and drainage

TECHNICAL BASIS AND DESIGN INTENT

Overhead glass design must consider gravity loading, wind uplift, snow accumulation, accidental breakage, maintenance strategy and safe retention of fragments. Drainage falls are an assembly-level requirement and cannot be checked solely from nominal roof pitch: supporting members and glass can deflect under sustained actions.

PROJECT-SPECIFIC REQUIREMENTS

Confirm laminated safety glass strategy, supported edge conditions, roof drainage, seal replacement, safe cleaning access, condensation risk and the structural path into the existing building.

DESIGN REVIEW MATRIX

Review item	Evidence or decision required
Design assumption	Overhead glass design must consider gravity loading, wind uplift, snow accumulation, accidental breakage, maintenance strategy and safe retention of fragments.
Verification	Drainage falls are an assembly-level requirement and cannot be checked solely from nominal roof pitch: supporting members and glass can deflect under sustained actions.
Interface	Confirm laminated safety glass strategy, supported edge conditions, roof drainage, seal replacement, safe cleaning access, condensation risk and the structural path into the existing building.

ARCHITECT / ENGINEER COORDINATION

For this topic, the architect should issue the performance intent and coordinated geometry; the glazing specialist should return a location-specific proposal with traceable evidence; the structural engineer should confirm load paths and interfaces; and the responsible compliance team should establish the applicable approval route. Unresolved assumptions must remain identified in the design risk register.

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10 Glass walls, fins and point-supported assemblies

TECHNICAL BASIS AND DESIGN INTENT

Vertical glazing may transfer wind load through four-edge frames, two-edge supports, glass fins or mechanical point fixings. Each arrangement changes stress distributions and movement demands. Structural silicone may contribute to weather sealing or structural restraint only where the specific design, material compatibility and quality controls support that role.

PROJECT-SPECIFIC REQUIREMENTS

Require coordinated glass-to-glass and glass-to-building interface drawings, fixity assumptions, movement joints, edge clearances and design of supporting structure. Never use a generic point-fixing detail as a standard UK solution.

DESIGN REVIEW MATRIX

Review item	Evidence or decision required
Design assumption	Vertical glazing may transfer wind load through four-edge frames, two-edge supports, glass fins or mechanical point fixings.
Verification	Each arrangement changes stress distributions and movement demands.
Interface	Structural silicone may contribute to weather sealing or structural restraint only where the specific design, material compatibility and quality controls support that role.
Specification	Require coordinated glass-to-glass and glass-to-building interface drawings, fixity assumptions, movement joints, edge clearances and design of supporting structure.
Inspection	Never use a generic point-fixing detail as a standard UK solution.

ARCHITECT / ENGINEER COORDINATION

For this topic, the architect should issue the performance intent and coordinated geometry; the glazing specialist should return a location-specific proposal with traceable evidence; the structural engineer should confirm load paths and interfaces; and the responsible compliance team should establish the applicable approval route. Unresolved assumptions must remain identified in the design risk register.

STATUS: Design guidance only. This page does not certify a glazing product, fire-rated assembly, calculation or construction junction.

11 Walk-on glazing and glass floors

TECHNICAL BASIS AND DESIGN INTENT

A walk-on panel is a structural floor element, not simply a thick safety glass sheet. It requires assessment of imposed loading, concentrated loading, slip risk, vibration, support settlement, local edge stresses and safe residual support after breakage. Finish and abrasion may affect appearance and slip behaviour.

PROJECT-SPECIFIC REQUIREMENTS

Define use category, load cases, accessible surface, slip resistance evidence, drainage, replacement strategy, maintenance access and a project-specific post-breakage scenario before selecting a glass build-up.

DESIGN REVIEW MATRIX

Review item	Evidence or decision required
Design assumption	A walk-on panel is a structural floor element, not simply a thick safety glass sheet.
Verification	It requires assessment of imposed loading, concentrated loading, slip risk, vibration, support settlement, local edge stresses and safe residual support after breakage.
Interface	Finish and abrasion may affect appearance and slip behaviour.
Specification	Define use category, load cases, accessible surface, slip resistance evidence, drainage, replacement strategy, maintenance access and a project-specific post-breakage scenario before selecting a glass build-up.

ARCHITECT / ENGINEER COORDINATION

For this topic, the architect should issue the performance intent and coordinated geometry; the glazing specialist should return a location-specific proposal with traceable evidence; the structural engineer should confirm load paths and interfaces; and the responsible compliance team should establish the applicable approval route. Unresolved assumptions must remain identified in the design risk register.

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12 Balustrades, barriers and guarding

TECHNICAL BASIS AND DESIGN INTENT

Part K addresses protection from falling, collision and impact. BS 6180 provides barrier design guidance. Required height and design actions depend on location, use and occupancy; glass barriers must be considered as complete systems, including base channels, anchors, substrate, handrail and residual behaviour.

PROJECT-SPECIFIC REQUIREMENTS

Check line, point and infill actions where relevant; assess glass fracture, fixing failure, edge protection, movement and whether a continuous handrail or alternative redundancy is necessary. Do not use a domestic detail in a public assembly area without redesign.

DESIGN REVIEW MATRIX

Review item	Evidence or decision required
Design assumption	Part K addresses protection from falling, collision and impact.
Verification	BS 6180 provides barrier design guidance.
Interface	Required height and design actions depend on location, use and occupancy; glass barriers must be considered as complete systems, including base channels, anchors, substrate, handrail and residual behaviour.
Specification	Check line, point and infill actions where relevant; assess glass fracture, fixing failure, edge protection, movement and whether a continuous handrail or alternative redundancy is necessary.
Inspection	Do not use a domestic detail in a public assembly area without redesign.

ARCHITECT / ENGINEER COORDINATION

For this topic, the architect should issue the performance intent and coordinated geometry; the glazing specialist should return a location-specific proposal with traceable evidence; the structural engineer should confirm load paths and interfaces; and the responsible compliance team should establish the applicable approval route. Unresolved assumptions must remain identified in the design risk register.

STATUS: Design guidance only. This page does not certify a glazing product, fire-rated assembly, calculation or construction junction.

13 Impact safety, manifestation and accessibility

TECHNICAL BASIS AND DESIGN INTENT

Glazing in critical locations needs an appropriate safety strategy under Approved Document K and relevant product/test standards, including BS EN 12600 where applicable. Large transparent screens can present collision hazards even where the glass itself has suitable impact performance. Doors and routes may also invoke accessibility requirements.

PROJECT-SPECIFIC REQUIREMENTS

Identify critical glazing zones on drawings, specify appropriate classification and provide suitable manifestation or other measures. Coordinate visual contrast, door hardware and accessibility with the architectural design.

DESIGN REVIEW MATRIX

Review item	Evidence or decision required
Design assumption	Glazing in critical locations needs an appropriate safety strategy under Approved Document K and relevant product/test standards, including BS EN 12600 where applicable.
Verification	Large transparent screens can present collision hazards even where the glass itself has suitable impact performance.
Interface	Doors and routes may also invoke accessibility requirements.
Specification	Identify critical glazing zones on drawings, specify appropriate classification and provide suitable manifestation or other measures.
Inspection	Coordinate visual contrast, door hardware and accessibility with the architectural design.

ARCHITECT / ENGINEER COORDINATION

For this topic, the architect should issue the performance intent and coordinated geometry; the glazing specialist should return a location-specific proposal with traceable evidence; the structural engineer should confirm load paths and interfaces; and the responsible compliance team should establish the applicable approval route. Unresolved assumptions must remain identified in the design risk register.

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14 Fire-resistant glazing: evidence and scope

TECHNICAL BASIS AND DESIGN INTENT

Fire classifications distinguish integrity E, radiation control EW and insulation EI. A glass pane alone does not make a compliant fire-resisting partition or door. Performance is based on a tested or appropriately assessed assembly including frame, beads, seals, fixings, dimensions and supporting construction.

PROJECT-SPECIFIC REQUIREMENTS

Use current Approved Document B provisions and the appropriate fire strategy. Obtain classification and test evidence with field of application; check permitted sizes, orientation, framing, supporting construction and installation instructions. Never swap glazing into an existing fire door without supported evidence.

DESIGN REVIEW MATRIX

Review item	Evidence or decision required
Design assumption	Fire classifications distinguish integrity E, radiation control EW and insulation EI.
Verification	A glass pane alone does not make a compliant fire-resisting partition or door.
Interface	Performance is based on a tested or appropriately assessed assembly including frame, beads, seals, fixings, dimensions and supporting construction.
Specification	Use current Approved Document B provisions and the appropriate fire strategy.
Inspection	Obtain classification and test evidence with field of application; check permitted sizes, orientation, framing, supporting construction and installation instructions.
Handover	Never swap glazing into an existing fire door without supported evidence.

ARCHITECT / ENGINEER COORDINATION

For this topic, the architect should issue the performance intent and coordinated geometry; the glazing specialist should return a location-specific proposal with traceable evidence; the structural engineer should confirm load paths and interfaces; and the responsible compliance team should establish the applicable approval route. Unresolved assumptions must remain identified in the design risk register.

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15 Thermal design, solar gain and condensation

TECHNICAL BASIS AND DESIGN INTENT

Insulating glass unit centre-pane U_g is not the whole-window U_w . Thermal bridging at frames, edges, fixings and building junctions can control condensation and energy performance. Solar factor g , visible light transmission, orientation and shading influence overheating and daylight. Parts L and O may both be relevant.

PROJECT-SPECIFIC REQUIREMENTS

Request declared performance for the complete assembly, thermal-bridge modelling where necessary, condensation analysis and overheating assessment. Check coatings and glass make-up against thermal stress and safety requirements.

DESIGN REVIEW MATRIX

Review item	Evidence or decision required
Design assumption	Insulating glass unit centre-pane U_g is not the whole-window U_w .
Verification	Thermal bridging at frames, edges, fixings and building junctions can control condensation and energy performance.
Interface	Solar factor g , visible light transmission, orientation and shading influence overheating and daylight.
Specification	Parts L and O may both be relevant.
Inspection	Request declared performance for the complete assembly, thermal-bridge modelling where necessary, condensation analysis and overheating assessment.
Handover	Check coatings and glass make-up against thermal stress and safety requirements.

ARCHITECT / ENGINEER COORDINATION

For this topic, the architect should issue the performance intent and coordinated geometry; the glazing specialist should return a location-specific proposal with traceable evidence; the structural engineer should confirm load paths and interfaces; and the responsible compliance team should establish the applicable approval route. Unresolved assumptions must remain identified in the design risk register.

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16 Weather resistance and moisture control

TECHNICAL BASIS AND DESIGN INTENT

A structural glass assembly must manage wind-driven rain, capillary paths, condensation and movement over its design life. Sealant alone should not be assumed to compensate for defective falls, missing flashings or incompatible substrates. UK cavity wall junctions require coordination of DPCs, cavity trays and weep paths where applicable.

PROJECT-SPECIFIC REQUIREMENTS

Provide a continuous weathering strategy on coordinated details showing primary/secondary seals, drainage, flashings, tolerances and inspection access. Verify that existing fabric is capable of accepting the proposed interface.

DESIGN REVIEW MATRIX

Review item	Evidence or decision required
Design assumption	A structural glass assembly must manage wind-driven rain, capillary paths, condensation and movement over its design life.
Verification	Sealant alone should not be assumed to compensate for defective falls, missing flashings or incompatible substrates.
Interface	UK cavity wall junctions require coordination of DPCs, cavity trays and weep paths where applicable.
Specification	Provide a continuous weathering strategy on coordinated details showing primary/secondary seals, drainage, flashings, tolerances and inspection access.
Inspection	Verify that existing fabric is capable of accepting the proposed interface.

ARCHITECT / ENGINEER COORDINATION

For this topic, the architect should issue the performance intent and coordinated geometry; the glazing specialist should return a location-specific proposal with traceable evidence; the structural engineer should confirm load paths and interfaces; and the responsible compliance team should establish the applicable approval route. Unresolved assumptions must remain identified in the design risk register.

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17 Structural silicone, seals and material compatibility

TECHNICAL BASIS AND DESIGN INTENT

Structural silicone glazing is a specialist engineered system. Adhesion, substrate preparation, joint dimensions, load duration, curing, compatibility and quality assurance are critical. Weather seals and structural bonds are not interchangeable. Compatibility concerns extend to laminated interlayers, IGU edge seals, coatings and setting blocks.

PROJECT-SPECIFIC REQUIREMENTS

Require manufacturer-supported design calculations, compatibility/adhesion testing, controlled production records and traceable installation inspections. Detail replacement and remedial procedures at design stage.

DESIGN REVIEW MATRIX

Review item	Evidence or decision required
Design assumption	Structural silicone glazing is a specialist engineered system.
Verification	Adhesion, substrate preparation, joint dimensions, load duration, curing, compatibility and quality assurance are critical.
Interface	Weather seals and structural bonds are not interchangeable.
Specification	Compatibility concerns extend to laminated interlayers, IGU edge seals, coatings and setting blocks.
Inspection	Require manufacturer-supported design calculations, compatibility/adhesion testing, controlled production records and traceable installation inspections.
Handover	Detail replacement and remedial procedures at design stage.

ARCHITECT / ENGINEER COORDINATION

For this topic, the architect should issue the performance intent and coordinated geometry; the glazing specialist should return a location-specific proposal with traceable evidence; the structural engineer should confirm load paths and interfaces; and the responsible compliance team should establish the applicable approval route. Unresolved assumptions must remain identified in the design risk register.

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18 Fabrication, quality assurance and traceability

TECHNICAL BASIS AND DESIGN INTENT

A technical specification should translate design assumptions into procurement controls: glass processing, edgework, holes and cut-outs, heat treatment, laminate orientation, IGU construction, dimensional tolerances and handling. Finished panes may not be safely altered on site after toughening.

PROJECT-SPECIFIC REQUIREMENTS

Use approved shop drawings, material certificates, production inspection records, test evidence and unique pane references. Establish nonconformance and replacement procedures before manufacture.

DESIGN REVIEW MATRIX

Review item	Evidence or decision required
Design assumption	A technical specification should translate design assumptions into procurement controls: glass processing, edgework, holes and cut-outs, heat treatment, laminate orientation, IGU construction, dimensional tolerances and handling.
Verification	Finished panes may not be safely altered on site after toughening.
Interface	Use approved shop drawings, material certificates, production inspection records, test evidence and unique pane references.
Specification	Establish nonconformance and replacement procedures before manufacture.

ARCHITECT / ENGINEER COORDINATION

For this topic, the architect should issue the performance intent and coordinated geometry; the glazing specialist should return a location-specific proposal with traceable evidence; the structural engineer should confirm load paths and interfaces; and the responsible compliance team should establish the applicable approval route. Unresolved assumptions must remain identified in the design risk register.

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19 Installation, inspection and handover

TECHNICAL BASIS AND DESIGN INTENT

Site conditions can invalidate otherwise sound calculations. Survey substrates, check support level and stiffness, verify fixings, prevent hard glass-to-metal contact and protect edges during lifting. Sequencing, temporary works and safe access should be addressed before delivery.

PROJECT-SPECIFIC REQUIREMENTS

Create inspection and test plans covering setting blocks, bearing, clearances, seals, fixings, movement allowances, drainage and final condition. Handover should include as-built drawings, calculations, maintenance instructions and replacement glass identifiers.

DESIGN REVIEW MATRIX

Review item	Evidence or decision required
Design assumption	Site conditions can invalidate otherwise sound calculations.
Verification	Survey substrates, check support level and stiffness, verify fixings, prevent hard glass-to-metal contact and protect edges during lifting.
Interface	Sequencing, temporary works and safe access should be addressed before delivery.
Specification	Create inspection and test plans covering setting blocks, bearing, clearances, seals, fixings, movement allowances, drainage and final condition.
Inspection	Handover should include as-built drawings, calculations, maintenance instructions and replacement glass identifiers.

ARCHITECT / ENGINEER COORDINATION

For this topic, the architect should issue the performance intent and coordinated geometry; the glazing specialist should return a location-specific proposal with traceable evidence; the structural engineer should confirm load paths and interfaces; and the responsible compliance team should establish the applicable approval route. Unresolved assumptions must remain identified in the design risk register.

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20 Specification schedules and authoritative sources

TECHNICAL BASIS AND DESIGN INTENT

The final architectural schedule should link each location to a performance specification and a corresponding evidence file. A responsible pack differentiates project design values from illustrative commentary and makes unresolved engineering assumptions visible rather than hiding them behind standard-looking details.

PROJECT-SPECIFIC REQUIREMENTS

Record standards editions, product declarations, fire classification reports, design calculations, interface details, Building Control submissions, commissioning checks and inspection sign-off. Sources:

gov.uk/government/collections/approved-documents; ggf.org.uk; cwct.co.uk; knowledge.bsigroup.com; fensa.org.uk; ukas.com.

DESIGN REVIEW MATRIX

Review item	Evidence or decision required
Design assumption	The final architectural schedule should link each location to a performance specification and a corresponding evidence file.
Verification	A responsible pack differentiates project design values from illustrative commentary and makes unresolved engineering assumptions visible rather than hiding them behind standard-looking details.
Interface	Record standards editions, product declarations, fire classification reports, design calculations, interface details, Building Control submissions, commissioning checks and inspection sign-off.
Specification	Sources: gov.uk/government/collections/approved-documents; ggf.org.uk; cwct.co.uk; knowledge.bsigroup.com; fensa.org.uk; ukas.com.

ARCHITECT / ENGINEER COORDINATION

For this topic, the architect should issue the performance intent and coordinated geometry; the glazing specialist should return a location-specific proposal with traceable evidence; the structural engineer should confirm load paths and interfaces; and the responsible compliance team should establish the applicable approval route. Unresolved assumptions must remain identified in the design risk register.

STATUS: Design guidance only. This page does not certify a glazing product, fire-rated assembly, calculation or construction junction.