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Review façade glazing spec: solar control, U-value, safety

Review façade glazing specification for solar control, U-value, and safety class with an interactive checklist. Fully commentable and export as PDF/Excel for compliant approvals.

Project:	
Date:	
Filled by:	

Specification Completeness	
1	Confirm document control details (title, revision, date, author, and distribution list) are present and current; evidence: screenshot or cover page PDF and revision register entry.
2	Verify façade glazing scope is defined by elevation, orientation, and zone (vision/spandrel), including pane IDs; evidence: annotated elevation with schedule cross-reference.
3	Check performance table includes g-value (SHGC), U-value (W/m²·K), VLT (%), and exterior reflectance (%); acceptance: all fields populated with targets and units.
4	Ensure safety class requirements are mapped to locations (impact zones, barriers, at-height risks); evidence: risk-zone matrix attached to the specification.

Solar Control Criteria	
5	Validate g-value/SHGC targets against energy model assumptions; acceptance: target ≤ project maximum; evidence: energy/daylight summary with scenario and climate file noted.
6	Confirm spectral data for specified coating (300–2500 nm) matches product code; evidence: manufacturer spectrophotometer report and datasheet with identical product naming.
7	Compare visible light transmittance (VLT) with daylighting objectives; acceptance: VLT within specified range ±2%; evidence: markups showing value per orientation.
8	Check exterior reflectance limits (day/night) to mitigate glare; acceptance: reflectance ≤ project limit; evidence: datasheet values highlighted and logged.
9	Confirm any reliance on external shading (fins/blinds) is noted; acceptance: coordination note referencing drawing IDs and control strategy.

Thermal Performance (U-value)	
10	Verify center-of-glass and system U-values (W/m²·K) are declared; acceptance: ≤ project maximum; evidence: thermal modelling report and framing detail references.
11	Check spacer type and edge-of-glass linear transmittance assumptions; acceptance: warm-edge spacer or documented psi-value; evidence: spacer datasheet and modelling input.
12	Confirm interior design conditions used for condensation assessment; acceptance: temperature factor or surface temperature above threshold; evidence: calculation summary.
13	Verify thermal break continuity in mullions/transoms at glass interfaces; evidence: detail callouts and section references proving uninterrupted breaks.

Safety and Impact Rating	
14	Confirm safety class (tempered/laminated) per risk zones and heights; acceptance: laminated where fall risk or overhead; evidence: marked schedule with rationale.
15	Verify human impact rating and authority requirements via test reports; acceptance: pass with lab stamp; evidence: certified impact test report attached.
16	Require heat-soak testing for fully tempered panes where specified; evidence: batch certificates with lot numbers and manufacturer sign-off.
17	For laminated makeups, confirm interlayer type and thickness meet post-breakage retention; evidence: interlayer datasheet and mock-up photo with label.

Documentation and Approvals	
18	Match specified glass/coating product codes to current manufacturer datasheets; acceptance: exact code match; evidence: highlighted datasheets saved to register.
19	Check sealant compatibility letters for coatings, spacers, and frits; evidence: supplier compatibility statement and contact details archived.
20	Confirm warranty terms for coating durability and IGU seal integrity; acceptance: meets project minimum years; evidence: draft warranty on letterhead.
21	Record color/appearance control: viewing conditions, sample IDs, and approvals; evidence: photos under D65 lighting and signed sample tags.

Fabrication and Installation Notes	
22	Verify maximum pane sizes and thicknesses within manufacturer published limits; evidence: product manual excerpt and schedule cross-check.
23	Specify setting blocks, edge clearances, and gasket hardness per supplier; evidence: detail references and supplier installation guide.
24	Confirm cleaning and maintenance guidance for coated glass is included; evidence: O&M; manual section with approved agents and frequencies.

Comments:

Filled by:

Signature:

Introduction	How to use this checklist
Review façade glazing specification for solar control, U-value, and safety class ensures the design brief aligns with project performance, safety, and sustainability goals before tender and fabrication. This checklist focuses on glass and coated IGU performance, including solar control (g-value/SHGC), visible light transmittance, exterior reflectance, and thermal transmittance (U-value), as well as safety class and impact resistance for designated risk zones. It targets façade engineers, architects, and contractors verifying submittals against the specification and approved project requirements. By resolving ambiguities early, teams avoid glare complaints, overheating, condensation, or non-compliant safety glazing that could trigger costly redesign, rework, or delays. You will confirm completeness of schedules, match products to datasheets and test reports, validate thermal modelling assumptions, and capture clear evidence for approvals. Use this as a disciplined gateway prior to procurement, mock-ups, and production drawings. Start in interactive mode to tick items, add comments, attach photos and PDFs, and export to PDF/Excel with a secure QR code.	1. Preparation: Gather specification, elevations, façade schedules, manufacturer datasheets, thermal and daylight summaries, sample photos, and test certificates. Equip with a laptop/tablet, light meter if reviewing samples, and PPE for mock-up visits. 2. Start Interactive Mode: Open the checklist, enable ticking and commenting, assign reviewers per section, and set due dates. Create folders to attach PDFs, photos, and emails to each item. 3. Capture Evidence: For every check, upload highlighted datasheets, modelling inputs, certificates, and annotated drawings. Record measured values, responsible party, and acceptance decisions with date and initials. 4. Resolve Comments and Versioning: Track responses, update statuses, and link revised documents. Maintain a revision register to prevent outdated data driving decisions. 5. Sign-Off: Collect digital signatures from the designer, façade engineer, and contractor. Export the commentable, interactive record to PDF/Excel with a QR code for authenticity and archive it.