

Bullet-Resistant Polycarbonate

SECURITY GLAZING / US & EUROPEAN SPECIFICATION

Specify the complete transparent barrier: glazing construction, frame, fixings, joints and transaction openings. Select the threat classification before selecting thickness.

01 Specify the destination-market route

Market / purpose	Standard reference	How to apply it
United States	ANSI/UL 752, 12th edition (2023)	Use the exact UL-HG / UL-RF / UL-SG designation from the applicable report. Earlier Level 1-10 reports identify a different edition; do not relabel them.
European projects	EN 1063; EN 1522 / EN 1523	Separate glazing classification from window / door / frame assembly testing. Record splinter behaviour, attack face and the exact tested construction.
Procurement decision	One specified testing route per requirement	No universal UL-to-EN conversion and no thickness-only ballistic rating. A named standard does not establish RP certification.

02 Product and performance parameters

Parameter	Unit / status	Technical requirement
Thickness / areal mass	mm / kg/m2	Exact tested lay-up; individual layers, coating, adhesive and attack face identified.
Panel / opening size	mm	Overall width x height, clear opening, edge engagement, tolerances and frame attachment drawing.
Ballistic result	Class + report ID	Projectile, velocity, hits, conditioning and protected-side fragment result per selected standard/edition.
Product evidence	Not established here	No RP product-specific ballistic report or listing was supplied for this revision.

Evidence status: no product-specific third-party reports were supplied. Referenced standards are procurement / test routes, not a declaration that RP products are tested, listed, CE marked or certified. Numeric limits must be agreed for the identified product and application.

Property and test method matrix

03 Record values with their test conditions

For each row, the approved schedule must state the measured value, required limit, unit, standard edition and report ID. US and ISO / EN routes below address related properties; they are not presented as equivalent tests.

Property	Unit	US / ISO / EN reference	Required test record / acceptance basis
Optical transmission / haze	% / %	ASTM D1003; alternatively ISO 13468-1 / ISO 14782	State thickness, colour, surface, test procedure and instrument. Methods are not automatic equivalents.
Tensile / flexural behaviour	MPa; GPa; %	ASTM D638 / D790; alternatively ISO 527 / ISO 178	Report strength, modulus and elongation with specimen, orientation, speed and conditioning. Short-term values are not allowable design stress.
Surface abrasion	Change in haze, %	ASTM D1044	Declare wheel, load, cycles and which coated face was tested; agree maximum change.
Ballistic resistance	Classification; m/s	UL 752 OR EN 1063, as specified	Submit complete report for the ordered construction. Verify dimensions, supports and limitations against the test.
Assembly protection	Assembly classification	UL 752 assembly route OR EN 1522 / EN 1523	Review frame, joints, openings and attachments; sheet evidence alone does not qualify the installed barrier.
Dimensions / mass	mm; kg/m ²	Approved drawing + agreed inspection plan	Set numeric tolerances, coating side, flatness and inspection sampling before manufacture.

Measured value is not the same as a catalogue typical value, guaranteed minimum or structural design allowable. Match the report to the grade, thickness, colour, coating, batch and fabrication route. Where no report is available, the result remains unverified.

Inspection schedule to agree before production

Identify sampling frequency, test specimens, numeric limits, drawing tolerances, inspection conditions and handling of nonconforming results. Use a qualified laboratory whose scope covers the selected method. Record buyer approval before release.

Design review and delivery acceptance

04 Engineering and release requirements

01 Define the threat and occupancy with the project security adviser. Record the exact standard edition and classification on the purchase specification.

02 Approve the complete layer schedule, attack-side marking and frame details. Changes in thickness, layers, adhesives or fabrication require review against the report.

03 Require product identification, report number, laboratory and tested configuration. Where listing is claimed, verify the exact model in the issuer database.

04 Set separate optical, abrasion, fire and weather-exposure requirements. A ballistic classification does not establish these other properties.

Release gate: approve a matching ballistic report and installation drawings before describing the product as rated or certified. This publication assigns no ballistic rating.

05 Source register and edition control

Public publisher / authority scope information checked 18 Oct 2026. These notes do not reproduce the standards or replace licensed full texts. Agree contract editions, amendments, required classifications and local authority acceptance before testing or purchase.

UL 752, edition 12 - official catalogue

UL Solutions - edition 12 designation changes

UK NPSA - glazing and frame testing / splinter behaviour

ASTM D1003 - luminous transmittance and haze

ASTM D638 / D790 - tensile / flexural material tests

RP product / application range (catalogue information)

Technical enquiries: oversales@rpplexiglass.com | +86 132 2992 0731

Send drawings and the required market standard