

Extra Clear PVB Interlayer Film

Architectural laminated safety glazing

Product summary: A plasticized polyvinyl butyral (PVB) interlayer engineered for high-clarity laminated glass. It combines optical transparency, glass adhesion, impact retention, UV screening and established autoclave lamination characteristics.

1. Product description

YAOJING® Extra Clear PVB is supplied as a flexible film for bonding glass plies into laminated safety glass. When correctly stored, handled and processed, the interlayer supports transparent glazing with low haze, reliable adhesion and post-breakage glass retention.

Typical applications

- Doors, windows, partitions, shopfronts and curtain-wall glazing
- Skylights, canopies, balustrades and overhead glazing where the selected glass design is suitable
- Residential, commercial and institutional laminated safety glazing
- Monolithic laminated glass and laminated plies used within insulating glass units

Design limitation: This Extra Clear PVB is a conventional architectural interlayer. It is not represented in this document as a structural/ionoplast interlayer. Final glass make-up, edge support, load resistance, compatibility and code compliance remain the responsibility of the glazing designer and laminator.

2. Available forms

Nominal thickness	Typical roll length	Available width	Color / appearance
0.38 mm	400-450 m	500-3300 mm	Extra clear

Nominal thickness	Typical roll length	Available width	Color / appearance
0.76 mm (0.030 in)	250 m	500-3300 mm	Extra clear
1.14 mm	150 m	500-3300 mm	Extra clear
1.52 mm	115 m	500-3300 mm	Extra clear

Roll length and width are commercial supply information and should be confirmed in the purchase specification. Custom roll formats may be available by agreement.

3. Film specification

Property	0.38 mm	0.76 mm	1.14 mm	1.52 mm
Average thickness range	0.360-0.400	0.740-0.780	1.120-1.160	1.490-1.550 mm
Width tolerance	+0 / +15 mm	+0 / +15 mm	+0 / +15 mm	+0 / +15 mm
Moisture content	0.25-0.55%	0.25-0.55%	0.25-0.55%	0.25-0.55%
Surface roughness Rz/Rpc	20-70 / 25-55	20-70 / 25-55	20-70 / 25-55	20-70 / 25-55
Static shrinkage	≤4.5%	≤3.5%	≤3.5%	≤3.5%
Visible light transmittance	≥85%	≥85%	≥85%	≥85%
Haze	≤0.6%	≤0.6%	≤0.6%	≤0.6%
Pummel adhesion	≥Level 6	≥Level 6	≥Level 6	≥Level 6

Specification basis: Values in this table are taken from the supplied Yaojing architectural technical specification. Unless a test method is

expressly stated, they are manufacturer specification limits, not values from the attached PRI safety-impact report.

Additional typical production values

Property	0.38 mm	0.76 mm	1.52 mm
Haze	≤0.15%	≤0.15%	≤0.30%
Light transmittance	≥90%	≥90%	≥90%
Moisture	0.35-0.55%	0.35-0.55%	0.35-0.55%
Yellow index	≤1.2	≤1.2	≤1.2
Shrinkage, 60°C / 15 min	≤3%	≤2%	≤1.5%
Tensile strength	≥20 MPa	≥20 MPa	≥20 MPa
Elongation at break	≥200%	≥200%	≥200%
Knock / pummel value	7-9	7-9	7-9

These are typical/internal quality-control values reproduced from the supplied Yaojing Extra Clear PVB TDS. Test configuration and method should be confirmed when values are used for project submittals.

4. Optical, solar and thermal reference performance

The following reference values apply to a representative clear laminated-glass construction and can change with glass thickness, glass chemistry, coatings, interlayer thickness and measurement method.

Property	Referenced method	Unit	Typical value
Solar transmittance	EN 410 / NFRC 100	%	75
Solar reflectance	EN 410	%	4
Solar absorptance	EN 410	%	18

Property	Referenced method	Unit	Typical value
Visible light transmittance	EN 410	%	88-90
Visible reflectance	EN 410	%	8
Solar heat gain coefficient	NFRC 300	-	0.80-0.82
Light-to-solar gain	Calculated	-	1.05-1.10
U-value: 3 + 0.76 + 3 mm	NFRC 100	W/m ² ·K	5.6-5.8
UV transmittance, 300-380 nm	EN 410	%	<1
UV protection	Calculated	%	>99

Thermal property	Referenced method	Unit	Typical value
Coefficient of thermal expansion	ASTM E831	ppm/°C	150-160
Thermal conductivity	ASTM D5930	W/m·K	0.20
Emissivity	ASTM C1371	-	0.94

Important: Solar and optical values in the supplied Yaojing TDS are reference values, not results contained in PRI Report 2901T0002. Project-specific glass performance should be verified using the actual glazing make-up.

5. Safety-glazing test evidence

PRI Construction Materials Technologies LLC tested Yaojing laminated safety-glass specimens under Project 2901T0002 on April 16-17, 2026. The tested construction was identified as 5,5-0.76(b) LSG Prototype, using a 0.030 in (0.76 mm) YAOJING interlayer.

Test / conditioning	Specimen configuration	Recorded result
ANSI Z97.1-2015 impact	Nominal 34 × 76 in; 100 lb impactor; 48 in drop	Pass - no shear or opening
CPSC 16 CFR 1201 impact	Same impact specimens and conditions	Pass - Category II unlimited rating
CAN/CGSB-12.1- 2022 impact	Same impact specimens and conditions	Pass - Class A unlimited rating
Thermal test	Nominal 12 × 12 in; 16 h at 212 ± 4°F	Pass - no cracks, bubbles or delamination

Accurate claim wording: The PRI report states that the tested specimens met the applicable performance requirements. It also states that the report does not constitute product certification, which may only be granted by the certification program administrator. Compliance evidence applies to the tested specimen construction and conditions.

6. Storage and handling

- Keep rolls sealed in their original moisture-barrier packaging until use. Reseal partly used rolls promptly.
- Store indoors in a clean, dry, temperature-controlled area, protected from sunlight, water, dust and sources of heat.
- Keep rolls upright or supported in the manufacturer-approved orientation; avoid crushing, impact and edge damage.
- Allow packaged material to equilibrate to the laminating-room conditions before opening to reduce condensation risk.
- Handle film with clean, lint-free gloves in a controlled laminating room. Prevent fingerprints, dust, silicone, oil and other contamination.
- Use stock on a first-in, first-out basis and follow the shelf-life stated on the package or certificate of analysis.

Storage conditions: The supplied Yaojing documents do not establish a single validated refrigeration temperature or shelf-life for this product. Those

items should be confirmed on the order documentation; competitor storage conditions have not been copied.

7. Lamination guidance

Processing parameters depend on equipment, glass make-up, interlayer thickness, ambient conditions and vacuum/de-airing efficiency. The following sequence is general guidance, not a fixed recipe:

- Wash and fully dry the glass; verify edge quality, cleanliness and correct lite orientation.
- Condition PVB and assembly-room air to the laminator's approved moisture and temperature controls.
- Assemble without wrinkles, trapped contamination or excessive film tension; trim safely.
- Pre-press/de-air until edge seal and residual-air quality are acceptable.
- Autoclave using a validated cycle for the specific line and construction; control heating, pressure, dwell and cooling.
- Inspect every finished laminate for bubbles, haze, optical distortion, edge defects, adhesion and dimensional conformity.

Process validation: The laminator must validate the cycle through trial laminates and quality testing. Contact Yaojing technical service for a product- and equipment-specific processing recommendation before production.

8. Compatibility, design and quality notes

- Confirm compatibility with sealants, coatings, frits, adhesives, setting blocks, edge tapes and cleaning chemicals before production.
- Do not expose PVB edges to incompatible materials or prolonged moisture. Use approved edge detailing and drainage.
- Safety rating depends on the complete laminate: glass type and thickness, interlayer thickness, dimensions, support and fabrication quality.
- For colored, coated, heat-treated, bent, multi-layer or unusual glass, produce representative mock-ups and conduct project-specific verification.

- PVB properties vary with temperature and load duration. Do not use this sheet as a structural calculation model.

9. Packaging and identification

The supplied specification describes sealed aluminum-film inner packaging with an outer wooden case or carton. Each shipment should be traceable by product designation, nominal thickness, width, length, roll/batch number and production identification.

10. Document basis and disclaimer

Source document	Use in this TDS
Yaojing PVB Full Clear Technical Specification	Manufacturer specification limits and packaging information
Yaojing PVB TDS - Extra Clear	Typical physical, optical, solar and thermal reference data
PRI Report 2901T0002, issued April 22, 2026	Independent test evidence for the stated 5,5-0.76(b) prototype specimens

The data are presented in good faith from the documents supplied for preparation of this sheet. Typical values are not guaranteed limits. Purchasers and processors must determine product suitability, verify current specifications, follow applicable laws and standards, and obtain project-specific approvals. No statement in this document expands the terms of the applicable sales warranty.

Manufacturer and contact

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