

CNCGLASS

Brand: **CNCGLASS**

Company: **CNC Ucolin Interlayer Technology Co., Ltd.**

Address: SHENZHEN, GD, CHINA

Peter Lin | cnc@cncGlass.com | WhatsApp/Mobile +86 15013829504 | WeChat wecan365 | www.cncglass.com

TECHNICAL NOTE

How to Achieve a Grey-to-Clear Vertical Gradient Effect in Laminated Glass

By Peter Lin

CNCGLASS · Purpose / Effect

This technical note describes how to produce laminated glass with a grey-to-clear (or frosted / tinted-to-transparent) **vertical** privacy gradient. Denser grey zones provide privacy; clearer zones pass more light. Typical uses include office partitions, shower enclosures, meeting rooms, and exhibition interiors.



Finished laminated glass panel — grey-to-clear vertical gradient (denser privacy grey at the top, clearer zone toward the bottom).

CNCGLASS · Recommended Stack

Use this exact build-up: Glass + clear EVA + gradient PET film + clear EVA + Glass. The gradient is printed on the PET film. Clear EVA must sit on BOTH sides of the PET insert so that melt and flow encapsulate the film during vacuum curing.

Layer (outside → inside → outside)	Material	Role
1 — Outer lite	Glass	Structural / viewing face
2 — Interlayer	Clear EVA	Bonds glass; flows around PET
3 — Insert	Printed gradient PET film	Grey→clear vertical visual
4 — Interlayer	Clear EVA	Encapsulates PET from both sides
5 — Outer lite	Glass	Structural / viewing face

Other visual effects (patterns, logos, colors) are customized printing on PET as clients need — not limited to grey-to-clear.

Recommended stack



Recommended stack (cross-section): Glass → clear EVA → printed gradient PET → clear EVA → Glass. Clear EVA on both sides of the PET insert.

CNCGLASS · Why This Route (EVA + Printed PET)

EVA vacuum lamination is a mature route for decorative inserts (PET, fabric, mesh, printed films). Compared with typical autoclave-PVB workflows for creative / small-batch art glass, EVA offers better flow mobility when heating and melting, which helps encapsulate PET, paper, silk, wire net, and fabric inserts. Industry practice also describes gradient PET EVA laminated glass as a common interior privacy method: EVA melts and bonds the printed PET to the glass.



Interior application example — office partition with grey-to-clear vertical gradient laminated glass (privacy denser at the top).

CNCGLASS · PET Design & Handling

Print a vertical grey→clear gradient on PET. Orientation in the panel should match the privacy story (this note uses denser grey at the top, clearer toward the bottom). Keep the film clean, flat, and wrinkle-free. Cut to glass size, or slightly within the glass edge, to reduce edge-bubble risk from film overhang.

- Client artwork may replace or extend the gradient (logos, colors, frosted bands).
- Avoid finger oil, dust, or folds on the printed face before layup.

CNCGLASS · Process Outline

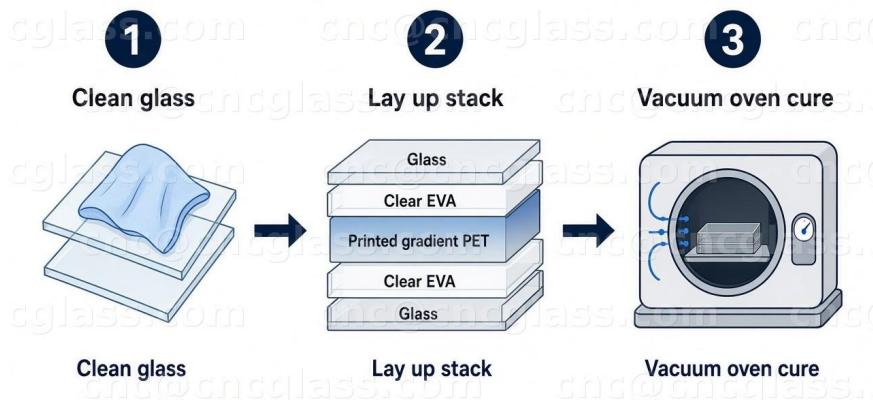
General EVA + insert practice (starting guidance — validate on your oven, glass, EVA grade, and PET ink):

- **Clean glass thoroughly** — no oil, dust, or fingerprints on bonding faces.
- **Lay up the recommended stack** — Glass / clear EVA / printed gradient PET / clear EVA / Glass. Avoid trapping dust or wrinkles in the PET.

- **Vacuum bag / vacuum oven** — apply cold vacuum first, then heat and cross-link per the EVA grade and the heat tolerance of the printed insert.
- **Keep vacuum through cure**; cool under vacuum toward room temperature before release (general EVA vacuum practice).
- **Small-sample test first** — always qualify the exact PET ink + EVA grade + glass before mass production.

Graphic / printed inserts — CNC option: For heat-sensitive graphic insertions, CNC publicly offers EVAFORCE LOW80-120 — laminating options at lower temperatures (including around 80 °C and around 130 °C modes) to help protect insertions from above about 100 °C. Present this as a CNC product option / starting guidance, not as a universal law for every oven or every PET ink.

Typical industry starting points for standard EVA vacuum cycles (not CNC-specific standards): cold vacuum → melt hold near ~90 °C → cross-link near ~130 °C. For sensitive printed films, prefer lower temperature and/or longer hold, then confirm adhesion and appearance on sample plates.



Process outline: clean glass → lay up the recommended stack → vacuum oven cure (cycle validated for the EVA grade and PET ink).

CNCGLASS · Application Notes

This build is most often used for interior partitions, showers, offices, and exhibition spaces. Outdoor or exposed-edge use needs a suitable outdoor-rated clear EVA grade and project testing. Safety laminated glass must still meet local standards for the glass / EVA system — the PET insert is decorative / functional privacy, not a substitute for structural design.

CNCGLASS · Customization

Any client-needed printed visual on PET can be laminated with the same stack — not only grey-to-clear. Provide artwork (drawings, logos, color targets); print on PET; then laminate with clear EVA on both sides.

Please feel free to contact us if you want to discuss a specific gradient artwork or sample layup — you may expect answers within 24 hours.

CNCGLASS · Contact

Brand: CNCGLASS

Company: CNC Ucolin Interlayer Technology Co., Ltd.

Address: SHENZHEN, GD, CHINA

Contact: Peter Lin

Email: cnc@cncGlass.com

WhatsApp / WeChat / Mobile: +86 15013829504 · WeChat: wecan365

Website: www.cncglass.com

CNC Ucolin Interlayer Technology Co., Ltd. · SHENZHEN, GD, CHINA · Peter Lin