CNCGLASS
CNC Ucolin Interlayer Technology Co., Ltd.
SHENZHEN, GD, CHINA
Peter Lin · cnc@cncGlass.com · WhatsApp / Mobile +86 15013829504
WeChat wecan365 · www.cncglass.com

CNCGLASS TECHNICAL NOTE

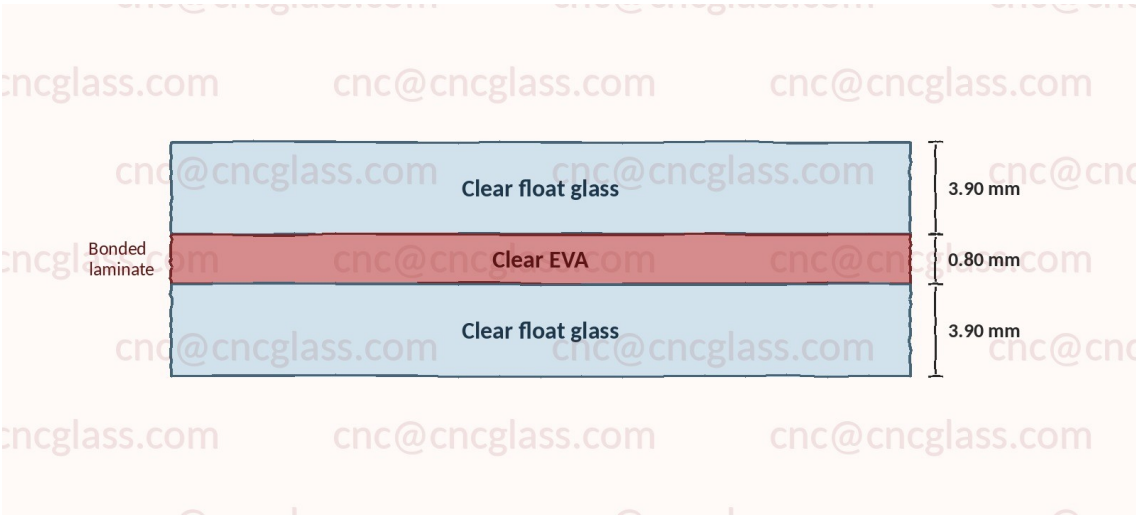
CNCGLASS 0.80 mm Clear EVA Laminated Glass — Durability and Light

A clear EVA laminate — 3.90 mm clear float / 0.80 mm clear EVA / 3.90 mm clear float, nominal 8.60 mm — was evaluated for high-temperature and humidity resistance, for luminous and ultraviolet transmittance to EN 410:2011, and for radiation resistance to EN ISO 12543-4:2011. No bubbles, delamination or cloudiness were observed after heat or humidity. After 2000 h of radiation the relative change in luminous transmittance was −1.3 %, −1.4 % and −1.2 % on the three specimens, with no delamination, conforming to EN ISO 12543-2:2011 point 5.3. Mean luminous transmittance of the unexposed makeup was 87.6 %, with UV transmittance of 0.05 %.

This document is a CNCGLASS technical note and performance summary. It is not a third-party test certificate or a certificate of conformity, and it does not authorise the use of any third-party laboratory mark.

Construction

The makeup is a clear EVA laminated safety glass: two plies of 3.90 mm clear float glass bonded with a 0.80 mm clear EVA interlayer. The nominal thickness is 8.60 mm (also recorded as 8.6 mm on the optical evaluation). High-temperature and humidity specimens were cut from a larger pane, with two sides left without edge working and two sides polished, 300 mm × 300 mm, and with no edge protection.



Clear laminate construction: 3.90 mm clear float / 0.80 mm clear EVA / 3.90 mm clear float.

High temperature and humidity

High-temperature exposure followed EN ISO 12543-4:2011 point 5, Procedure A, for 16 h. Humidity exposure followed point 6.3.1. After each exposure the three specimens were measured for thickness and inspected for bubbles, delamination and cloudiness. None were found, and both items conformed.

Exposure	Thickness (mm)	Bubbles / delamination / cloudiness	Conformity
High temperature — specimen 1	8.18	None / None / None	Yes

High temperature — specimen 2	8.17	None / None / None	Yes
High temperature — specimen 3	8.16	None / None / None	Yes
Humidity — specimen 1	8.18	None / None / None	Yes
Humidity — specimen 2	8.16	None / None / None	Yes
Humidity — specimen 3	8.15	None / None / None	Yes

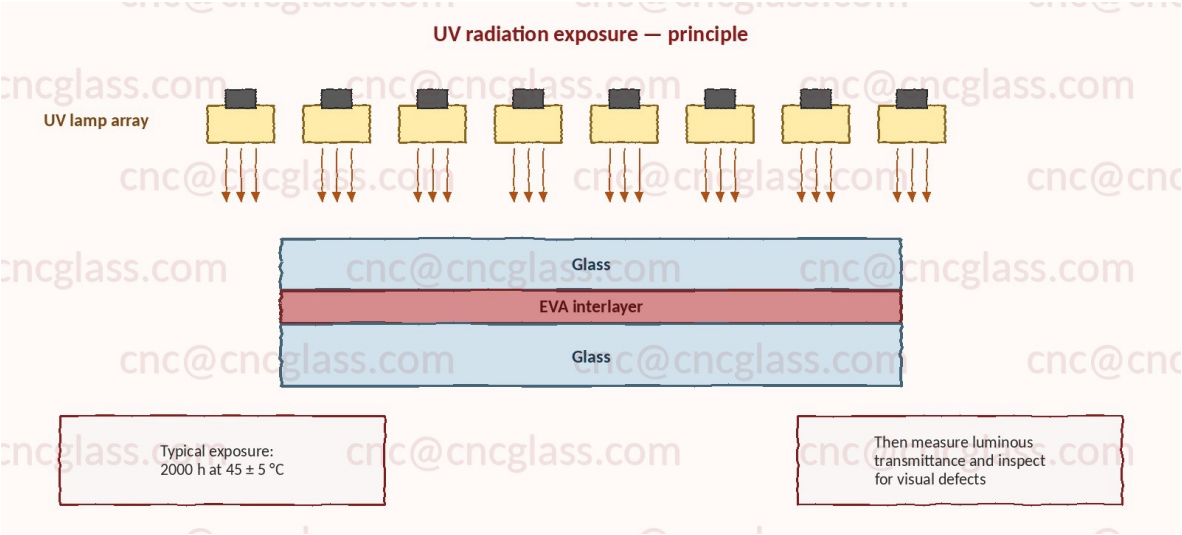
Luminous and ultraviolet transmittance (EN 410:2011)

Spectral transmittance was measured at near-normal incidence over 300–800 nm and reduced to EN 410:2011 characteristics as the mean of three determinations. Ultraviolet transmittance was 0.05 %. Luminous transmittance was 87.6 %.

Radiation resistance

Radiation exposure followed EN ISO 12543-4:2011 point 7.3.1, method A: sixteen 300 W lamps, 2000 h at 45 ± 5 °C, on 30 cm × 30 cm specimens of average thickness 8.3 mm, with no special edge treatment. Luminous transmittance was measured to EN 410:2011. The relative difference is reported as (τv,ae − τv,be) / τv,be. No delamination was observed. The construction conforms to EN ISO 12543-2:2011 point 5.3.

Specimen	τv before (%)	τv after (%)	Relative difference (%)
1	87.1	86.0	−1.3
2	87.0	85.8	−1.4
3	88.7	87.6	−1.2



Principle of the ultraviolet radiation exposure used to assess transmittance stability of the clear EVA laminate.

Commentary for laminated-glass use

A 0.80 mm clear EVA in a 3.90 + 3.90 mm clear float makeup is a slightly heavier interlayer gauge than the common 0.38 mm or 0.76 mm films, and it is often selected when a little more adhesive mass or process tolerance is wanted on a vacuum line. The unexposed optical figures — 87.6 % luminous transmittance and 0.05 % ultraviolet transmittance — are those of a high-clarity clear laminate: almost all of the visible window is preserved, while the EVA package cuts the ultraviolet component very sharply.

After 2000 h of method A radiation the relative losses of 1.2 % to 1.4 % are small against the EN ISO 12543-2 allowance of ± 10 % for products whose initial luminous transmittance exceeds 20 %. Specimen 3 started at 88.7 % and finished at 87.6 %, a relative change of −1.2 %, in line with the other two specimens. Combined with a clean

Procedure A and condensed-humidity result on mixed polished / unworked edges, the construction can be specified as CNCGLASS 0.80 mm clear EVA laminated glass for general architectural glazing.

Contact Us

Brand: CNCGLASS

Company: CNC Ucolin Interlayer Technology Co., Ltd.
Address: SHENZHEN, GD, CHINA
Contact: Peter Lin
Email: cnc@cncGlass.com
WhatsApp / Mobile: +86 15013829504
WeChat: wecan365
Website: www.cncglass.com