

Clarity & haze — what to expect.

Clearshift switchable smart film is a **PDLC (Polymer-Dispersed Liquid-Crystal)** product. Because it contains a layer of liquid crystal, in its clear state it carries a small, inherent level of haze and will never look exactly like a single sheet of plain float glass. This is completely normal, and this guide explains why — and how to get the very best clarity from your install.

WHY A LITTLE HAZE IS NORMAL

Every Clearshift panel is inspected for quality and clarity before it ships. The liquid-crystal layer that lets the glass switch is also a light diffuser — so in the clear "on" state you may notice a faint haze, especially at an angle. This is a characteristic of all PDLC smart glass and film worldwide; it is not a fault.

- Haze increases at wider viewing angles — it's most clear when viewed straight on (around 90°).
- Haze increases when there's a big imbalance in light between the two sides of the glass.
- Because of the slight difference from plain glass, we don't recommend butt-jointing Clearshift panels directly against ordinary float glass, or sitting the two side by side for direct comparison.

LIGHTING CONDITIONS — BEST TO WORST

Where you place lighting relative to the glass has the biggest effect on perceived haze. Use this as a planning guide for rooms and partitions:

BEST

Balanced & diffused

Lights on both sides of the glass at even intensity, softly diffused and set back at sensible distances — the lowest daytime haze.

GREAT

All lights off (dark state)

With no lights on either side, there is very little haze — the panel reads beautifully in the clear state.

GOOD

Brighter inside

When the lit side (e.g. inside a meeting room) is brighter than the far side, expect only a slight haze.

AVOID

Bright far side only

Lighting only on the opposite side of the glass creates the biggest intensity imbalance and the most noticeable haze.

Design tip: Plan lighting so the two sides of any switchable panel are reasonably balanced, and avoid aiming bright fittings directly at the film from one side only. Diffused, evenly placed lighting gives the crispest result.

THE TAKEAWAY

A small amount of haze is part of how switchable glass works — it's the same physics that delivers instant, reliable privacy at the flick of a switch. Set the lighting up thoughtfully and your Clearshift glass will look its absolute best, day and night. If you'd ever like help planning a space, our team is happy to advise before you order.