

Haze Specifications for Gauzy LCG® with LC Technology

Gauzy is a world leading developer and manufacturer of LC-based technology and Light Control films with the highest level of transparency and lowest level of haze in the market.

- All Gauzy LCG® is inspected and tested for clarity with Gauzy's patented quality verification system before and after lamination.
- LCG® is comprised of multiple layers, including glass, adhesive interlayers, and our premium Liquid Crystal films. Because of this, LCG® will inherently have some level of haze and may have a different clarity from regular clear float glass.
- LCG® is a highly optical product that diffuses light. Haze increases as a result of general lighting conditions and wide viewing angles.
- Haze can be mitigated by taking certain steps to create an ideal LCG® environment.

White PDLC Film Specification

Color	Translucent	Clear
VTL (Parallel Light Transmittance)	3%	78%
Total Transmittance	65%	80%
Haze (ON)	Min 2.1%	
Off-Axis Haze 45° (ON)	9-12%	

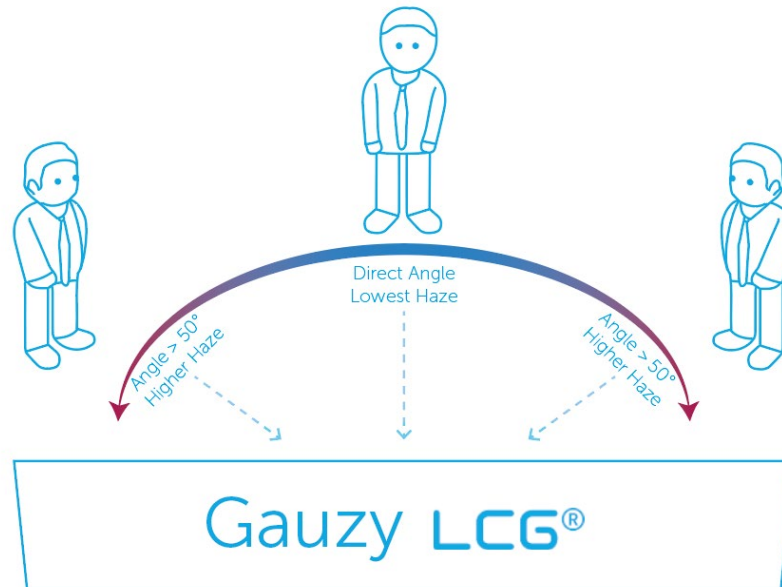
Lighting Conditions

The following lighting conditions will affect the appearance of haze:

- Light shining directly onto the glass from above, below, or parallel.
- Strong and bright light levels inside a room will make LCG® appear hazy when viewing from the outside.

* The above lighting factors might also increase reflection, which can disturb optical properties

Viewing Angles



- When positioned at a direct angle you will get the highest level of transparency and lowest level of haze.
- As the viewing angle becomes wider, the level of haze increases.

Passage of Light

- The angle of light and the type of illumination that passes through Gauzy's LCG® determines the level of haze.
- The light that passes through Gauzy's LCG® can be affected by the materials between the two glass layers.
 - Layers of the material in the film and the adhesive interlayers used in laminated LCG® may cause the light to scatter or diffuse.
 - This phenomenon is known as Wide Angle Scattering, which causes haze due to the loss of transmissive contrast, and Narrow Angle Scattering which reduces clarity.
 - This causes the light to scatter in different directions from regular light exposure.

Dictionary

Transmission – The amount of light that passes through the material without being scattered.

Haze – The amount of light that is subject to Wide Angle Scattering (at an angle greater than 2.5° from a direct viewing angle).

Clarity – The amount of light that is subject to Narrow Area Scattering (at an angle less than 2.5° from a direct viewing angle).

Durability

Gauzy LCG® films are tested for haze and durability with state-of-the-art testing equipment, such as the Haze Gard I and the Atlas Weathering Machine. Gauzy is committed to the continuous development of LC technology, which has resulted in uniquely designed formulas that boast the lowest haze and longest durability when compared to other options on the market.

The graph below demonstrates how Gauzy’s haze is effected over an extended period of time, in outdoor conditions, as opposed to our competitors. To date, our current PDLC film has been tested to simulate constant use in harsh, outdoor conditions that are equivalent to approximately 16 years. Tests are ongoing and updated as results become available.

