# GLASSWERKS – TECHNICAL BULLETIN

## SURFACE RESIDUE AND MOISTURE ON GLASS

### TECHNICAL DOCUMENT: GW-TB-007

**CONDENSATION ON GLASS SURFACES**

Condensation can appear on a glass surface whenever that surface becomes colder than the surrounding air's dew point. The dew point represents the temperature at which air reaches full saturation and can no longer hold additional moisture. When the glass temperature drops below this threshold, water vapor naturally transitions into liquid droplets on the surface.

This occurrence is not an indication of a flaw in the glass. Rather, it reflects normal thermodynamic behavior. Glass—especially high performance or energy efficient types—can cool rapidly under certain environmental conditions. Clear night skies, nearby landscaping, shading patterns, and even minor variations in indoor or outdoor humidity can all influence whether condensation forms. Small differences in temperature or moisture levels from one area to another can lead to noticeable differences in how much condensation appears.

Condensation on the exterior surface of glass is widely recognized in the industry as a natural environmental response. It does not compromise the structural integrity, clarity, or long-term performance of the glass. Vitro's technical literature on condensation reinforces that this phenomenon is expected under specific atmospheric conditions and does not constitute a product defect.

**SUCTION CUP AND HANDLING PAD MARKS**

The circular patterns visible on the glass are consistent with residue left by suction cups or protective handling pads used during fabrication or installation. As described in Vitro TD 107, these devices can leave microscopic deposits on the glass surface. Because glass contains natural micro texture, these particles settle into low points and alter how water droplets cling to the surface—making the marks more noticeable when the glass is wet.

These marks do not damage the glass and typically diminish over time through normal weathering. Following GANA's cleaning recommendations, a non-abrasive glass cleaner or a light polishing product can help reduce or remove the residue.

In summary, both the condensation and the visible handling related residue are normal, expected conditions that do not indicate any defect in the glass. These observations align with established industry guidance, and proper cleaning methods may further improve appearance without the need for replacement.

**REFERENCES**


- Vitro Architectural Glass - TD-107 **(Residue on Glass)**
- Gana - GG 005—2015-02-23 **(Proper Procedures for Cleaning Architectural Glass Products)**



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