VIRACON®
GLASS IS EVERYTHING®

Mock-up Glass

Using Visual and Performance Mock-up Glass to Ensure Project Success

EXCEEDING INDUSTRY STANDARDS FOR COMMERCIAL ARCHITECTURAL GLASS

At Viracon, we take pride in delivering glass solutions that meet and often exceed industry specifications. Below are key insights into how our visual and performance mock-up glass (VMU/PMU) meets the highest industry quality standards and guidelines while ensuring project success for everyone involved.

Q1 | WILL THE PROJECT PRODUCTION GLASS MATCH THE QUALITY OF THE VMU/PMU GLASS?

Viracon's mock-ups are designed to reflect our standard production quality and coatings. While mock-ups serve as a valuable tool for product selection and evaluation, they are not intended as a final control sample. However, all production glass will meet or surpass current industry standards, ensuring exceptional performance and consistency.

Q2 | CAN THE VMU/PMU GLASS BE USED AS A BASELINE FOR QUALITY MEASUREMENTS?

Viracon provides comprehensive reports, including coating color measurements, rollerwave, millidiopter assessments, and warp and bow data for mock-up glass. While these reports offer valuable insights, they represent only a small segment of the expected tolerance range and should not be used as the sole benchmark for final project glass.

Q3 | HOW ARE ARCHITECTURAL FABRICATED GLASS TOLERANCE RANGES ESTABLISHED?

Architectural fabricated glass is produced within defined tolerance ranges that determine its acceptability for use in construction projects. These tolerances are established by industry standards, including ASTM International (American Society for Testing and Materials) and EN standards (European Norms), to ensure consistency, safety, and performance.

Q4 | WHAT ARE THE TOLERANCE RANGES?

Tolerance ranges define the acceptable limits for various characteristics of fabricated glass, such as:

Dimensional Accuracy
Ensuring the glass meets precise width, height, and thickness requirements.

Flatness and Distortion
Controlling for roller-wave, bow, and warp to maintain optical clarity and structural integrity.

Color Consistency
Setting parameters for allowable variation in glass fabricator applied coatings and interlayers.

These tolerances allow manufacturers to produce glass efficiently while ensuring a high level of quality control.

Q5 | WHAT ARE THE PASS/FAIL CRITERIA IN ARCHITECTURAL GLASS?

Viracon fabricated glass produced for construction projects is assessed using pass/fail criteria, meaning that units must fall within specified tolerances to be considered acceptable. These criteria are defined in standards such as:

ASTM C1036
Standard Specification for Flat Glass

ASTM C1048
Standard Specification for Heat-Treated Flat Glass

ASTM C1376
Standard Specification for Pyrolytic and Vacuum Deposition Coatings

ASTM C1172
Standard Specification for Laminated Architectural Flat Glass

If any glass exceeds the allowable tolerance in any category, it is deemed non-conforming and will not pass final inspection. However, minor variations within the accepted range are expected due to the nature of large-scale glass fabrication. These tolerances allow manufacturers to produce glass efficiently while ensuring a high level of quality control.

Q6 | WILL ALL GLASS BE MANUFACTURED AT THE SAME TIME AND ON THE SAME PRODUTION LINE TO ENSURE CONSISTENCY?

Viracon is committed to delivering high-quality fabricated glass that, at a minimum, adheres to strict ASTM and EN standards for all elements within the insulating glass composition. To uphold our delivery commitments, we may utilize multiple proprietary equipment lines, all of which operate in Owatonna, MN within the same strict manufacturing tolerances. Our operating procedures and equipment are calibrated and set to establish equipment interchangeability; this allows Viracon to scale our manufacturing to meet the critical path schedules you choose.

Q7 | CAN VIRACON PRODUCE SAMPLE IG UNITS AT BOTH THE UPPER AND LOWER TOLERANCE RANEFGS TO SET A BENCHMARK?

Viracon maintains strict quality control to ensure that all glass produced meets or exceeds industry specifications. However, we do not manufacture intentional deviations at the upper and lower tolerance limits, as our process is designed to optimize consistency and quality across all our products regardless of when they are fabricated.

SETTING THE STANDARD IN ARCHITECTURAL GLASS

Viracon's commitment to innovation, precision, and excellence ensures that every fabricated glass offering we produce meets the highest industry benchmarks—delivering superior performance, reliability, and aesthetic appeal for your project.

For additional information, please contact your Viracon sales representative or architectural glass team at **viracon.com/contact**.