



# **VIRACON ARCHITECTURAL GLASS:**

# ENGINEERED TO A HIGHER STANDARD OF FLATNESS.

Viracon's enhanced glass flatness specification delivers glass with fewer distortions and sharper reflections – ensuring facades look as they were designed. Viracon heat treats before depositing Low-E coatings on glass, resulting in superior visual clarity and consistency across every lite. Powered by advanced manufacturing, automation, and AI, Viracon is redefining advanced glass measurement and raising the standards for flatness, reflective clarity, and architectural aesthetics.

## **KEY BENEFITS**

- Reduced visual distortion
- Precise flatness specification
- Flatter, higher-quality glass
- Superior aesthetics and performance

# WHAT DISTORTS GLASS AND HOW TO PREVENT IT.

- Usually occurs during heat treating. Glass is heated close to its softening point and then cooled rapidly.
- The heating/cooling process can cause distortion such as roller wave, edge kink and overheating.
- Precise control of temperature, timing and conveyor movements is vital for producing glass that has best-in-class visual uniformity.
- Viracon's superior fabrication process, where glass is cut and heat treated before Low-E coatings are applied, helps to minimize distortion.

# OUT WITH THE OLD, IN WITH THE NEW MEASUREMENT TECHNOLOGY.

**OLD WAY:** Traditional, manual tools for measuring and quality control - roller wave trolley and zebra boards. These limited methods are two-dimensional, subjective, outdated and do not measure the full surface of the glass.

**NEW WAY:** A precise, comprehensive approach using advanced digital distortion measurement systems that instantly scan 100% of the glass surface for optical distortion and report results in millidiopters (mD).



#### **MILLIDIOPTER MEASUREMENTS:**

Viracon measures 100% of the glass surface with thousands of data points on every lite.



#### **ROLLER WAVE MEASUREMENTS:**

Traditional roller wave distortion measurement measures along a single line of the glass surface only.

# WHAT IS A MILLIDIOPTER?

A millidiopter (mD) is a unit of measurement that quantifies the curvature of glass surfaces, and represents optical distortion that our eyes can see. The result is a full flatness profile across the entire lite, not just surface-level data.

SPECIFICATION DESCRIPTION

95 / 90mDA

95 = % OF DISTORTION READINGS

90 = DISTORTION THRESHOLD

(MEASURED IN mD)

95% of ALL distortion readings on the glass surface must be 90mD or less.

# VIRACON INTERNAL FLATNESS SPECIFICATION

THICKNESS	mD <u>A</u> ( <u>A</u> ll surface area)	mD <u>L</u> ( <u>L</u> eading edge)	mD <u>T</u> ( <u>T</u> railing edge)
6mm (1/4")	95/100	95/175	95/175
8mm ( <sup>5</sup> / <sub>16</sub> ") to 12mm ( <sup>1</sup> / <sub>2</sub> ")	95/90	95/135	95/135

### SPECIFICATION INCLUDES 3 POINTS OF MEASUREMENT

 $\mathbf{mDA}$  = Measurement across ALL surface area of the glass lite

mDL = Measurement in the LEADING edge area of the lite

mDT = Measurement in the TRAILING edge area of the lite

- Includes all substrate tints
- Excludes: pre-coated substrates (RoomSide® Low-E), ceramic enamel, silkscreen or digital ink.

