



Minimize
the Heat Wave
ON HEAT TREATED GLASS

TRUFORM™ TEMPERED GLASS

TrueForm™

Tempered Glass

Extraordinary glass for your next project

MINIMIZE THE HEAT WAVE ON HEAT-TREATED GLASS

VITRUM™ TrueForm™ Tempered glass helps architects and building owners realize their design vision. With our full convection tempering furnace and computerized Osprey distortion monitoring system, Vitrum can measure and correct roll wave, pocket distortion and end-kink in real-time. This allows us to provide a premium tempered and heat strengthened glass product with nearly undetectable distortion levels and exceeds all ASTM, CGSB and GANA standards and meets the requirements set forth by major float glass suppliers.

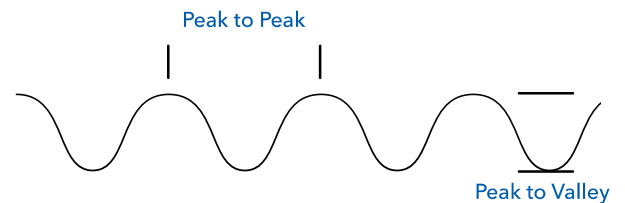
HOW IT WORKS

As the glass exits the tempering furnace a system mounted over the conveyor provides highly-precise digital measurements. The leading edge, central area and trailing edge of every lite of glass is measured. Roll wave peak-to-valley values are calculated for the entire surface area of the glass lite and are displayed to the operator in real-time and also stored in a database for later review and analysis. The operator immediately observes and removes product that fails to meet these tight tolerances, ensuring you receive glass that meets or exceeds our stringent TrueForm™ standards.

- Every piece of glass is measured†
- Entire surface of the glass is measured
- Data is recorded and available upon request

WHAT IS ROLL DISTORTION?

Roll distortion is the periodic wave imparted to glass during heat-treatment. The viewer perceives the roll wave as optical distortion in the reflection or transmission of the finished window. These roll waves are always present at some level in heat-treated glass due to the glass being transported horizontally on ceramic rollers in the tempering furnace. However, by carefully controlling the heat and quench uniformity, the glass can exit the furnace with minimal roll distortion. The degree of the roll distortion that is present is measured by the industry in peak-to-valley and peak-to-peak distance.



EXTRAORDINARY GLASS



Vitrum TrueForm™ Tempered Glass
roll-wave of .003



Industry Typical Tempered Glass
roll-wave of .008



Typical Tempered Glass From Vitrum
roll-wave of .004

ICONIC ARCHITECTURE DESERVES THE BEST

Shown on this page are three pieces of tempered glass. Reflected in the glass is a photograph of the Brooklyn Bridge and New York City skyline. These three photographs represent the levels of reflection and distortion found when using highly-reflective tinted glass in an insulated glass unit. By specifying TrueForm™ tempered glass (above) for your next project, you can ensure your building will be as iconic as this landmark.

EXTRAORDINARY GLASS EVERY TIME

Upon request, Vitrum can provide detailed documentation of distortion levels for each lite of glass ordered, ensuring you receive extraordinary glass every time. Vitrum highly recommends TrueForm™ tempered glass for all monumental projects or when using moderately to highly reflective glass types. For more information or to order a full-size mock-up for your next project visit vitrum.ca or call us at 1.888.391.1166.

CAPABILITIES

Minimum :	12" x 24"	305mm x 610mm
Maximum :	130" x 240"	3302mm x 6096mm
Roll Wave (Horizontal):	Maximum 0.003 Center / 0.008 Edges (Peak to Valley)	
Compliance :	ASTM C1036, ASTM C1048 and CAN/CGSB-12-1-M90	
Measurement:	Every lite measured, documentation available upon request	

†Certain shapes, unusual aspect ratios, and painted glass (screen or digitally printed, spandrel, etc.) may cause incorrect measurement readings and/or be unavailable in TrueForm™. Glass with a low-e coating must be edge deleted prior to tempering, any variation from Vitrum's standard edge deletion of 7/16" (11mm) will negatively impact the leading and trailing edge distortion.

VITRUM

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