Strainoptics® PS-100-Digivideo Polarimeter System

FOR OBSERVATION & MEASUREMENT OF RESIDUAL STRESS & BIREFRINGENCE IN GLASS & PLASTICS

The PS-100-DIGIVIDEO Polarimeter system is the ideal solution for measuring **and digitally storing** residual stress or birefringence information from a wide variety of applications and industries. Its uses range from simple inspection and interpretation of photoelastic colors to precise quantitative measurements using analyzer rotation or compensation techniques.

- Verify annealing state of glass or plastic containers, tubing, lenses, lamps, etc.
- Measure optical retardation in order to calculate stress or birefringence using plane or circular polarization
- Study distribution and magnitude of compressive and tensile stresses in float glass, glass seals, quartz, and advanced materials, as well as in molded and sheet plastics
- Comply with worldwide polarimetry standards and test methods, including ASTM C148, F218, and D4093
- Each PS-100 Polarimeter System comes with a certificate of traceable calibration according to ASTM Procedure C1426.

PS-100-SF–DIGIVIDEO. Our most versatile polarimeter system that can be used in plane or circular polarization. This package includes:

- Circularly polarized LED illuminator with a 7.5 in x 7.5 in (190 x 190 mm) sample stage
- SA-100 rotatable Senarmont analyzer with stationary quarter-wave plate.
- Digital USB color camera with 6:1 zoom lens mounted on an 18” (460 mm) heavy-duty post
- Imaging software for capturing images. Computer available upon request.

PS-100-BS-DIGIVIDEO. This system is the same as the system above with the following changes:

- Plane (linearly) polarized illuminator with a 7.5 in x 7.5 in (190 mm x 190 mm) sample stage
- A-100 rotatable Senarmont analyzer with stationary quarter-wave plate.
- We can also supply a set of five certified strain disks for measuring container glass in accordance with ASTM C148

ACCESSORIES: The PS-100-Digivideo is available with all PS-100 accessories, including:

- **LWC-100** single-wedge (Babinet), variable-field compensator (0-2500 nm) Sensitivity: 10 nm
- **DWC-100** double-wedge (Babinet Soleil) compensator with a **digital** readout. Its uniform field of retardation makes it ideal for applications with high stress gradients. Sensitivity: 5 nm.
- **SWF-100** Monochromatic Filter that improves visualization of low-stress & high-stress samples by eliminating color (fractional fringe orders)
- **RPLP-100** Full Wave Tint Plate for improving the visualization of low-stress samples by adding retardation and thus color.
- **Immersion Cells** for non-flat samples
- **Calibration Gauges** for instrument verification
- **Custom Samples Stages** for unique items
- **Fiberoptic,** high-intensity light sources for translucent items.

See www.strainoptics.com/ps-100-polarimeters for additional details on any of the above configurations or options.

108 W. Montgomery Avenue, North Wales PA 19454 USA
www.strainoptics.com 215-661-0100 stress@strainoptics.com

Strainoptics