苏州精创光学仪器有限公司
SUZHOU PTC OPTICAL INSTRUMENT CO., LTD

Stress Visualization | Precise Measurement
Trackable result | Compatible with Various Materials

Semi-automatic Polariscope

Application

This Polariscope series adopts polarized light and photoelasticity principle to qualitatively observe, analyze and quantatively measure residual stress inside transparent crystals, glass, and plastic products. It is mainly used for stress-related quality control in process development and production stages.

Testing Method

Sensitive Tint Color Method---Qualitative Analysis
The entire field of view appears to be slightly reddish purple, which is known as a sensitive color. The area with stress appears green- blue or orange-yellow.

Senarmont method--- Quantative Measurement
The entire field of view appears to be dark black. When rotating the top analyzer, the viewing field color will change accordingly.

Testing Principle

The stress of glass, plastic, and crystal products has birefringence characteristics, which will produce specific phase retardation in the polarizing field. Through specific polarization analysis devices, the optical phenomena produced by different degrees of phase retardation can be presented as ripple patterns.

PSV-702

Typical Application

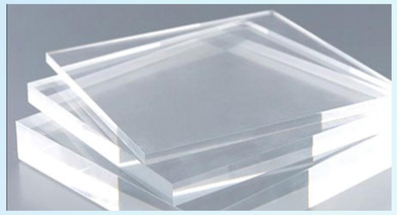
- ☑ 1.Transparent glass products, such as fused quartz components, optical glass and glassware
- ☑ 2. High transmittance crystal products, such as Sapphire bar, YAG rod
- ☑ 3. Transparent plastic products, such as optical resin film ,plastic sheet
- ☑ 4. Other plastic components , such as lens

Main Parameters

Item \ Model	PSV-702
Polarizing field	200*200mm
Analyzer	Diameter 78mm
Retardation Measuring range	0-280nm
Repeating accuracy	±1.5nm (scale compass rotation : ± 0.5°)
Vieid of view	Max 190*150mm/ min 3.5*2.1mm
Light source	White LED
Measuring height	Max 259mm (adjustable)
Dimension	W280*D380*H680mm
Weight	about 15KG (computer is not included)

Application Area

Glass

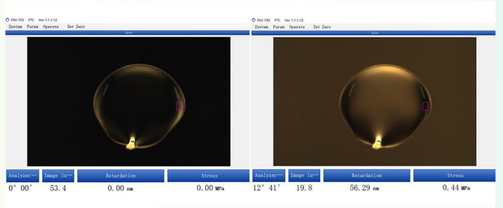


Plastic

Crystal

Testing Image

Sensitive Colour Method
observe stress presence



Senarmont Method
measure retardation and stress

Result output

Contact Us

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