Surface Stress Meter
model: FSM-6000X

The FSM-6000 X series is developed for measuring the surface stress of glass using a PC.

Chemical and thermal tempering is increasing the areas of glass application in most of industries.

The optical waveguide effect in the surface layer of tempered glass is a useful tool for measuring surface stress for quality and process control purpose.

・Since the prism shape has changed, it is less susceptible to contamination by immersion liquid.

・The dimming method has changed from an optical filter type to an electric type.

Feature
o   Non-destructive measurement
o   Output measurement data
o   Measure the double ion exchange glass
o   Display of cross section stress distribution
o   OK/NG judgement

Option
o   Measure glass thickness automatically using glass Thickness Meter
o   Auto dispenser
o   One touch switch (when judgement mode)
   ＊Please refer to the each catalogue for the details

Specification

Type	UV	VIS	IR
Light source	LED 365±10 nm	LED 596±10 nm	LED 790±10 nm
Meas. Range CS*	0-1000 MPa	0-1000 MPa	0-1000 MPa
Meas. Range DOL*	5-50 um	10-100 um	10-200 um
Precision	CS ±5 MPa, DOL ±3 um (For the standard glass)		
Accuracy	CS ±20 MPa, DOL ±5 um (Accuracy of the standard glass)		
Object	Chemically tempered glass, Physically tempered glass		
Object Size	Flat 10×10 mm or more		
PC	Exclusive use (OS and measurement software are already installed)		
OS	Windows 10/11 64 bit		
Meas. Software	FsmX		
Weight	14kg (Main body), 6kg (PC), 3kg (Monitor)		
Size (mm)	280*600*220 (Main body), 290*93*293 (PC), 512*180*397 (Monitor)		

* The measurement ranges shown in the table are only a guide. In reality, they vary depending on the photoelastic constants and refractive index distribution of the glass.
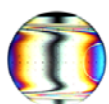
ORIHARA
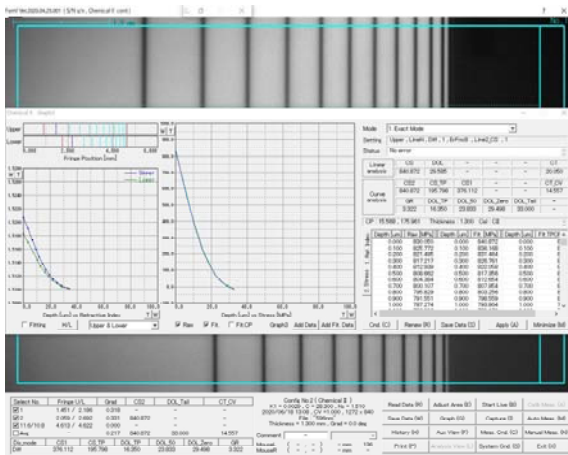### INDUSTRIAL CO.,LTD

Measurement Wavelength

VISIBLE (596nm)

Character:
Standard type. The wavelength is nearby Sodium D line. Easy to get the information of refractive index and photoelastic constant of the glass.

EX.
Chemically tempered glass
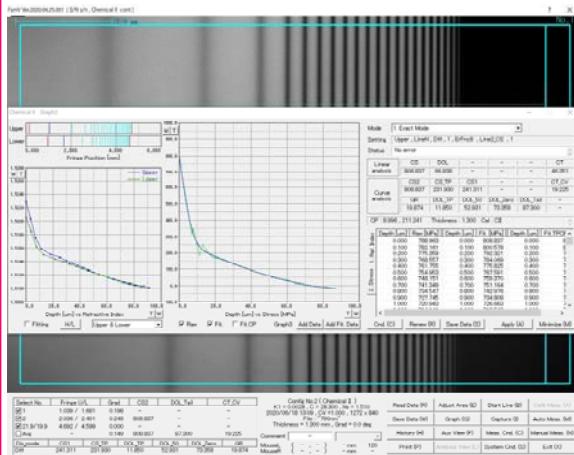(KNO3 x 1 step)

IR (790nm)

Character:
Detected fringes will decrease. It is effective in case of that many fringes are detected, and they are unable to be read exactly.

EX.
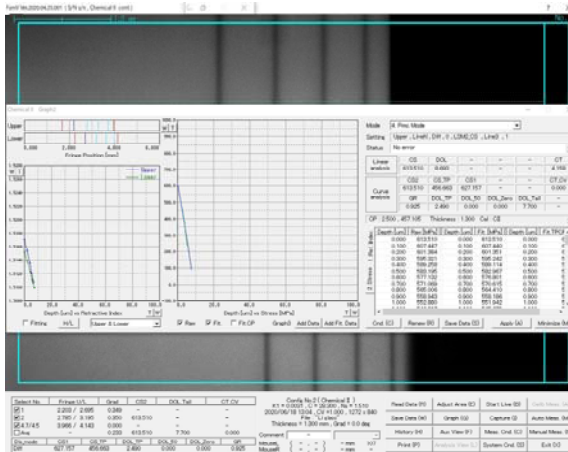Chemically tempered glass
(KNO3 x 2 steps)

UV (365nm)

Character:
Detected fringes increase about 1.5 times to the case of VIS. It is effective in case of that detected fringes are lack, and unable to measure the stress.

EX.
Chemically tempered glass
(NaNO3 + KNO3, only shallow area)

DUAL

VIS + IR

VIS + UV