

Filmeasure 2200

Special Angle Spectrum Reflectance Instrument

Patent Technology PID:012101

- ▶ Rapid spectrometric measurement
- ▶ 45°/60°special angle aberration measurement
- ▶ Dual silver or tri-silver coated low-E glass manufacturers' indispensable option



Meet GB/T18915.1-2002 *solar control coated glass* standard
Meet GB/T18915.2-2002 *Low-E glass* standard

Application: Single silver, dual silver and
tri-silver Low-E coated glass
IG
Any kinds of display glass

Filmeasure 2200 Off-angle Spectral Reflectance Instrument

This instrument is used to measure the spectral reflectance, color and aberration of architectural glass, display glass, electronic glass and other functional glass at wide angle.

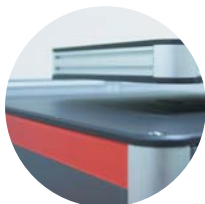
For thicker coating layer, aberration observed under large angle is more apparent than vertical viewing conditions. For dual silver and tri-silver Low-E glass, at small angle there is no aberration, but at large angle, obvious aberration appears.

Application: Single silver, dual silver and tri-silver Low-E
coated glass
IG
Any kinds of display glass

Function: Measure color reflection aberration at large angle

Measure: $R(\lambda)$, Y_{xy} , $L^*a^*b^*$, ΔE values

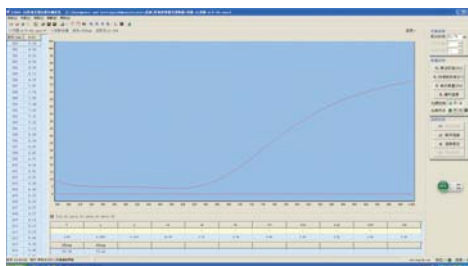
Standard: GB/T18915.1-2002 *solar control coated glass*
GB/T18915.2-2002 *Low-E glass*



Features

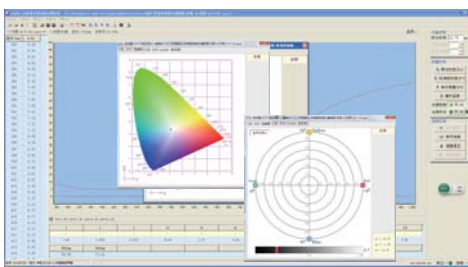
- Independent intellectual property rights product;
- Large size glass and IG is measurable;
- Could measure at angle of 45 or 60 degrees ;
- Rapid spectrum measurement in bright conditions, suitable for large amounts of data test.

Function



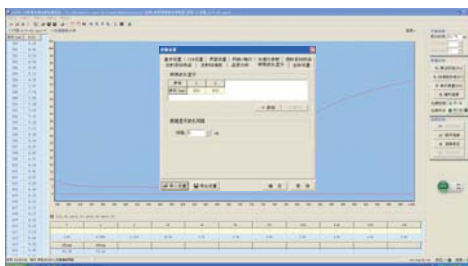
Reflectance spectrum measurement

Can measure the reflection spectrum of dual silver, tri-silver Low-E glass at wide angle. The x- or y-axis may be adjusted by your needs to enlarge curve and observed easily.



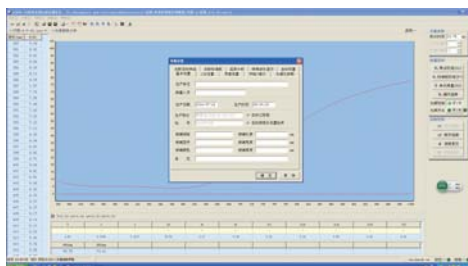
Reflectance color measurement

You can measure reflectance color parameters at wide angle, get real-time observed Y, x, y values in standard CIE1931 and L*, a*, b* in standard CIE1976. The color display is more visual in CIE1976 standard color zone.



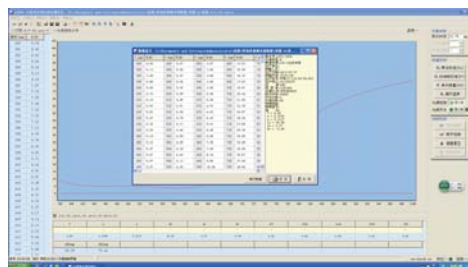
Special wavelength display

Users can setup wavelength intervals as 1nm, 5nm, 10nm to display spectral data, several wavelengths may be chosen to display, which is convenient for users to observe transmittance and reflectance change at sensitive wavelength.



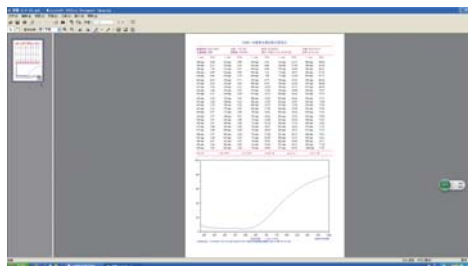
Add basic Information

Users can set up manufacturer, measurement personnel, production date, production time, production shift, batch number, glass specification, glass parameters and so on, which makes it convenient to trace information after data stored. The related information will be demonstrated in print report.



Display spectrum data

Display reflection data between 380nm and 1000nm according to your setup wavelength interval, display glass-related information at the same time.



Printout test data

Data can be conveniently stored, the software has printing function, able to print spectra data and current interface, demonstrated as report.

Parameters

light source	halogen lamp	Reflectance measuring range	0 ~ 100%
Spectrum half width	3 ~ 5nm	Repeat Accuracy	$\Delta E^* < 0.1$ (standard deviation)
Wavelength Accuracy	0.3nm	Interface	Ethernet
Spectral measurement interval	1nm	Dimensions	550mm×610mm×516mm
Spectral storage interval	5nm	Power Supply	AC100V~240V 3A
Measurement speed	full spectrum measurement < 1s	Max power	1kW
Measurement geometry	45°: 45° 60°: 60° (other angle is customizable)	Wavelength range	380nm ~ 780nm (Filmeasure2200) 380nm ~ 1000nm (Filmeasure 2201)

Accessory

Item	Description	Quantity
1	Reflection sample	1
2	Extinction cylinder	1
3	Standby lamp MLF-8	4
4	Software disc	1
5	PC	1
6	User manual	1

Consumables

Item	Description	Model
1	Standby lamp	MLF-8

Package

Package: aluminum box Packing size: 730mm×630mm×600mm Net weight: 46Kg Gross weight: 68Kg

Remarks

For thicker coating layer, aberration observed under large angle is more apparent than vertical viewing conditions. For dual silver and tri-silver Low-E glass, at small angle there is no aberration, but at large angle, obvious aberration appears. The standard angle of this instrument is 45° or 60°, other angle can be customized. The instrument is essential for dual silver and tri-silver Low-E coated glass manufacturers.

Specification

