UV3000F Ultraviolet Fabric UPF Test Instrument

Achieve instantaneous UPF protection factor performance of fabric/textile samples

Labsphere's UV3000F incorporates the latest component and software technology into an industry proven system architecture, to achieve accurate UPF, critical wavelength and UVA:UVB ratio of fabric samples. Driven by rapidly evolving industry requirements to simplify research and development or quality control for fabric samples, the UV3000F is designed to comply with recently approved testing methods

Fast

The UV3000F rapidly measures the diffuse transmittance of textile samples in the ultraviolet wavelength region from 280 - 500 nm. Labsphere's Spectralon® integrating sphere incorporates an optimized xenon flash lamp to provide exceptional diffuse illumination of the product sample and minimize data integration time. Our new high-performance diode array spectrometers coupled by advanced fiber optics are optimized at the system level for low stray light with superior wavelength stability and flash-to-flash repeatability.

Value

Stay current with automatic calculations of UPF parameters per:

- AATCC TM183 (2020)
- AS/NZS 4399:2017
- AS 4399:2020,
- EN 13758-1:2002+A1:2007
- EN 13758-1:2001+A1:2006
- GB/T18830:2009
- JIS L 1925:2019

and user defined methods

Benefits

- Simplifying ultraviolet protection factor testing with speed and versatility
- NEW **Robust industrial design** built to last
- Save time and money with Labsphere's **flash technology** for rapid testing
- NEW Low learning curve **menu-driven software** for sample testing and reporting to industry standards plus new configurable interface and reporting features
- NEW Know more with **extended test capabilities** over the UV-VIS range from 280 nm to 500 nm
- NEW **Save time and trust results** with our calibration validation kit with our linear filter holder that improves calibration validation efficiencies by more than 75%
- **Achieve repeatable sample placement** with the manually operated sample stage positioning for pre and post-irradiation

Easy to operate

The menu driven software guides the user through industry test methods. The built-in report functions generate essential information analysis and industry standard reporting formats. Reports include necessary information such as date, time, operator name, sample identification, and test parameters. Reports are conveniently viewed on your PC, printed, or can be exported to data processing software for further review and analysis.

Powerful application software

- Developed with .NET Framework®, easy to use Windows® 11 compatible software
- Capture, Archive and Retrieval and export of all data including bare substrate data that may impact UVA-PF due to surface roughness.
- Integrated Performance Validation Routine that allows for on-site validation and re-validation to ensure optimum instrument performance.

Ordering Information and Specifications

Model Name	Order Number
UV3000F	AA-01628-100

Includes everything needed to start testing out of the box:
UV3000F UV Fabric UPF Test Instrument
UV3000F Control Software
Manual Sample stage with 50 mm x 50 mm, 75 mm x 75 mm, and ISO 9 point templates
UV UPF Spectrophotometer Validation Kit: A set of calibrated standards, including a wavelength standard that captures six relevant spectral bands.

Specifications

Wavelength Range:	280 to 500 nm*
Wavelength Accuracy:	±1 nm
Bandwidth: (FWHM)	< 4 nm
Wavelength Step: (Data Interval)	1 nm
Optical Geometry:	Hemispherical Illumination/0° viewing (d/0)
Integrating Sphere Material:	Spectralon®
Integrating Sphere Port Area:	< 5%
Sample Exposure Area:	0.79 cm^2
Lamp:	Xenon Flash Lamp
UV Dose Per Measurement Cycle:	< 0.2 J/cm^2
Sample Positioning Stage:	Manual Stage
Measurement Range:	
Transmittance:	0 - 100%
Absorbance:	0 - 3.0 A
UPF:	1 - 70+
Scan Time:	< 5 s

Measurement Methods Supported:
Automatic calculations of UPF parameters per AATCC TM183 (2020), AS/NZS 4399:2017, AS 4399:2020, EN 13758-1:2002+A1:2007, EN 13758-1:2001+A1:2006, GB/T18830:2009, JIS L 1925:2019, and user defined methods

Computer Interface:	USB
Computer Requirements:	Windows11 and newer
Power Requirements:	110 - 120/220 - 240 VAC, 60/50 Hz
Operating Environment:	00 - 50°C, 0% - 70% RH (non-condensing)

* All UPF measurement ranges are dictated by the regional industry standards.