



UVShield

Ultraviolet Protection Tester

The UVShield Ultraviolet Protection Tester rapidly determines the UV transmittance of fabrics across the ultraviolet wavelength spectrum. The device provides reliable results through its 360° testing system and its unique planetary trajectory operating mode. One-click scanning allows for rapid measurement. It calculates UV protection factors, such as the UPF value and the UVA: UVB ratio, without any manual input.

Its testing accuracy and stability are comparable to those of top brands. This provides a reliable method for evaluating the UV protection performance of products. The UVShield complies with multiple international standards, including AATCC 183, JIS L 1925:2019, AS/NZS 4399, and BS 7914. The NFC module on the top can be used to scan and read/write test task information, such as sample numbers, test batches, operator details, and time records.

UVShield uses IoT to connect mobile apps, desktop software, and LIMS. This allows for real-time remote monitoring, direct data sharing, and scheduled OTA updates. It ensures the safety and reliability of UV-protective textiles, from lab research to commercial use. This offers a full solution for UV performance testing. It's useful in research, quality assurance, and manufacturing.

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360° Testing for More Reliable Results

UVShield uses an innovative planetary orbit operation mode, featuring dual trajectories—near and far orbit. This setup ensures that samples are exposed to UV light from all angles during testing, providing 360° coverage with no blind spots and delivering a comprehensive and consistent evaluation of UV protection.

One-Click Scan, Instant Results

Load your samples and get complete UPF values, UVA/UVB ratios, and critical wavelength analysis in seconds—fully automated from start to finish. Designed for high-throughput testing, UVShield delivers fast, reliable results even for large batches.

Test accuracy and stability on par with top international brands.

UVShield offers automatic wavelength scanning and supports the entire UV spectrum (250–450 nm or more). It ensures high wavelength accuracy and great repeatability. It can spot even small differences in transmission. This gives a solid way to assess how well textiles protect against UV rays.

Compatible with multiple international standards

UVShield meets global UV-protection test standards like AATCC 183, JIS L 1925:2019, AS/NZS 4399, BS 7914, and EN 13758. This means UVShield can meet market needs worldwide.

Automated operation and reporting

UVShield has an easy-to-use interface. You can start tests with one click. It also creates charts and reports automatically. Data export is simple, requiring minimal training and reducing human error. After finishing, the test results will be uploaded to the system. They will be combined with other tests to create detailed reports. This leads to a fully automated, paperless workflow.



Power

220V and Compatible with global voltages



Weight

About 15kg



Dimension

370*248*325 mm(L*W*H)

Specification

Measurement Range	Transmittance: 0–100%T; UPF: 0–50+
Wavelength Range	250–450nm
Wavelength Accuracy	±0.5nm
Wavelength Repeatability	0.2nm
Scanning Interval	1nm, 2nm, 5nm
Spectral Bandwidth	2nm (±20%)
Sample Beam Size	7 × 2mm
Integrating Sphere Aperture Area	<5%
Light Source	Pulsed Xenon Lamp
UV Dose per Measurement Cycle	<0.2J/cm ²

Standards

AATCC 183:2020
JISL 1925:2019
AS/NZS 4399
BS 7914
EN 13758
GB/T 18830-2009