

XENOTEST®

220/220+

Light Exposure
Testing Instrument



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Experience. The Atlas Difference.

The Atlas® Xenotest® 220 is the result of more than 50 years of experience in the design and manufacturing of xenon test instruments for lightfastness testing of textiles and related materials like leather and paper. From the introduction of the first Xenotest 150 in 1954 through today, Atlas has always collaborated with the global textile industry to continuously improve reliability, product performance and ease of use in the Xenotest product line.

Xenotest 220 combines Atlas' proven xenon test chamber design with state-of-the-art controls resulting in long-lasting reliability day after day, essential to each laboratory. Within the Atlas Xenotest series, 220 holds the position of the pure lightfastness specialist next to the more advanced 150 S+ and Alpha+ models. A specialist for economical lightfastness testing in line with the common industry standards.

The Xenotest 220 and 220+ use air-cooled, long-lasting 2200 W low-pressure xenon arc lamps. A XENOSENSIV® sensor controls both irradiance and temperature on the sample rack.



Standards	
ISO	105-B02 (all options)
AATCC	TM16-2004 (option 3)
AATCC	TM169 (option 2 & 3)



☛ Xenotest® 220

- Keypad control with black/white LCD display available in multiple languages
- 38 sample positions for specimen sizes 135 mm × 45 mm (2310 cm² sample capacity)
- On-rack XENOSENSIV® irradiance and Black Standard Temperature (BST) control
- Chamber Temperature (CHT) and BST controlled simultaneously
- Ultrasonic humidifier with 60 litre integrated water reservoir

☛ Xenotest 220+

- Large touch screen control with colour display available in multiple languages
- Pre-programmed ISO and AATCC lightfastness standards
- 38 sample positions for specimen sizes 135 mm × 45 mm (2310 cm² sample capacity)
- On-rack XENOSENSIV irradiance and BST control
- CHT and BST controlled simultaneously
- Ultrasonic humidifier with 60 litre integrated water reservoir
- Chamber window
- Memory card for easy data acquisition and software updates
- XenoTouch Add-ons for online networking (*see page 5*)





The **Xenotest® 220** and **220+** are digitally controlled. The touch screen and keypad control are both available in multiple languages, which enable easier handling after initial installation.

Xenotest 220

Keypad Control

- Asian and European languages for easier operation
- Simple-to-use keypad
- Storage for user-defined test methods
- Quick-start of tests
- Parameter check
- Automatic system / alarm messages

Xenotest 220+

Touch Screen Control

- Asian and European languages for easier operation
- Pre-programmed ISO and AATCC standards
- Storage for user-defined test methods
- Easy menu-driven programming
- Quick-start of tests
- Displayed parameter trend plots for easy monitoring
- Automatic system / alarm messages
- Memory card for easy data acquisition and software updates
- Ethernet interface
- Add-ons for online operation



XenoCal® Sensors for Reliable Long-lasting Instrument Calibration

The XenoCal BB 300–400 BST is a broadband irradiance sensor combined with a BST sensor.

It's ideal for calibration of irradiance in the range 300–400 nm and simultaneous BST calibration at the sample plane.

The device is highly accurate as the two values – E and BST – are measured at the same time and place. The advantage: one or two calibration routines per year are typically sufficient.



Sample Holders and Cover Masks

New practical quick-insertion technique for both thin (≤ 3 mm) and thick samples (≤ 15 mm). Standard cover masks for ISO and AATCC testing.



Atlas XenoTouch Add-ons for the Xenotest 220+

Additional software modules activate the Ethernet interface on the instrument control board. Online features help make your daily lab work easier:



Add-on 1: Remote Control

Conveniently program the instrument remotely. Security protection via access rights.



Add-on 2: E-Mail Service

Receive important system information and error messages quickly and securely via E-Mail.



Add-on 3: Online Monitoring

Online access to instrument status reports via a web browser.

Quality Lamps

All Atlas® xenon lamps are specially designed for use in Atlas lightfastness and weathering devices to ensure optimal spectral power distribution across the lamp's entire 1500 hour recommended service life.

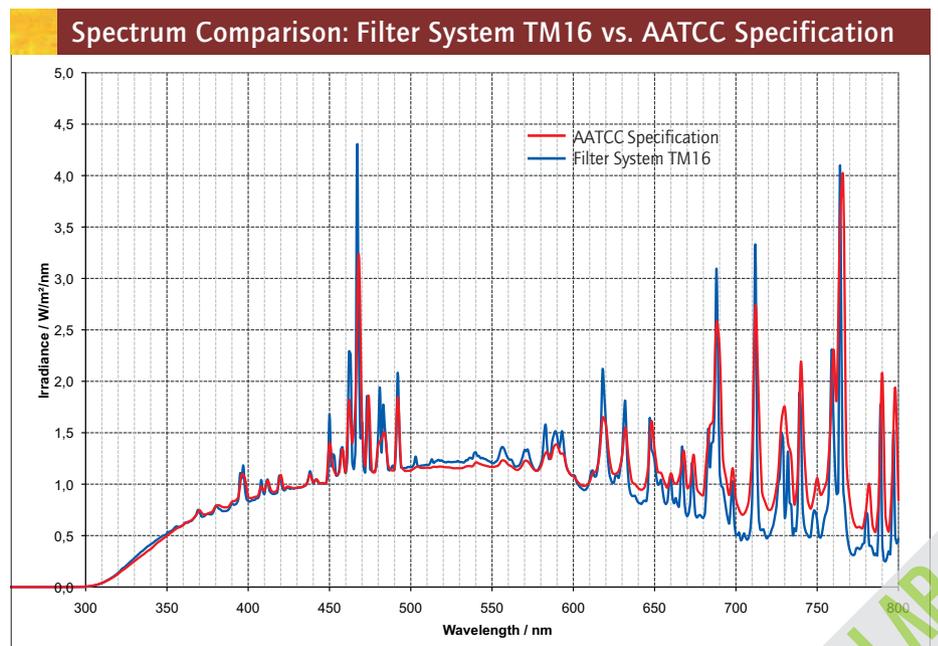
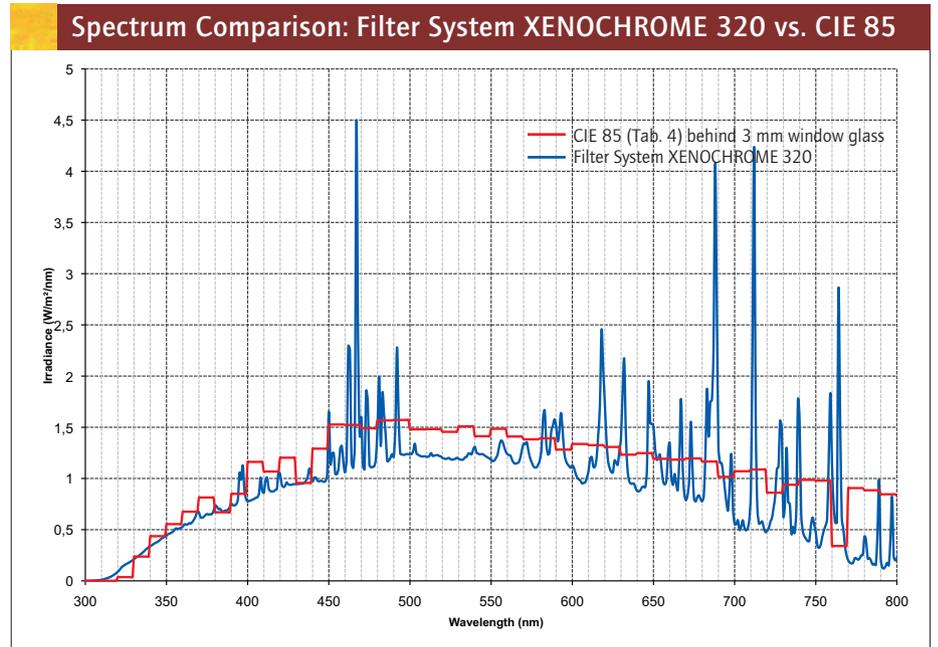


Light according to Standards

Two optical filter lanterns are available to produce a spectrum specified in ISO and AATCC test methods:

- XENOCHROME® 320 non-aging filter system for ISO 105-B02 testing.
- TM16 non-aging filter system for test method AATCC TM16.

A special UV glass outer cylinder completes the optics.

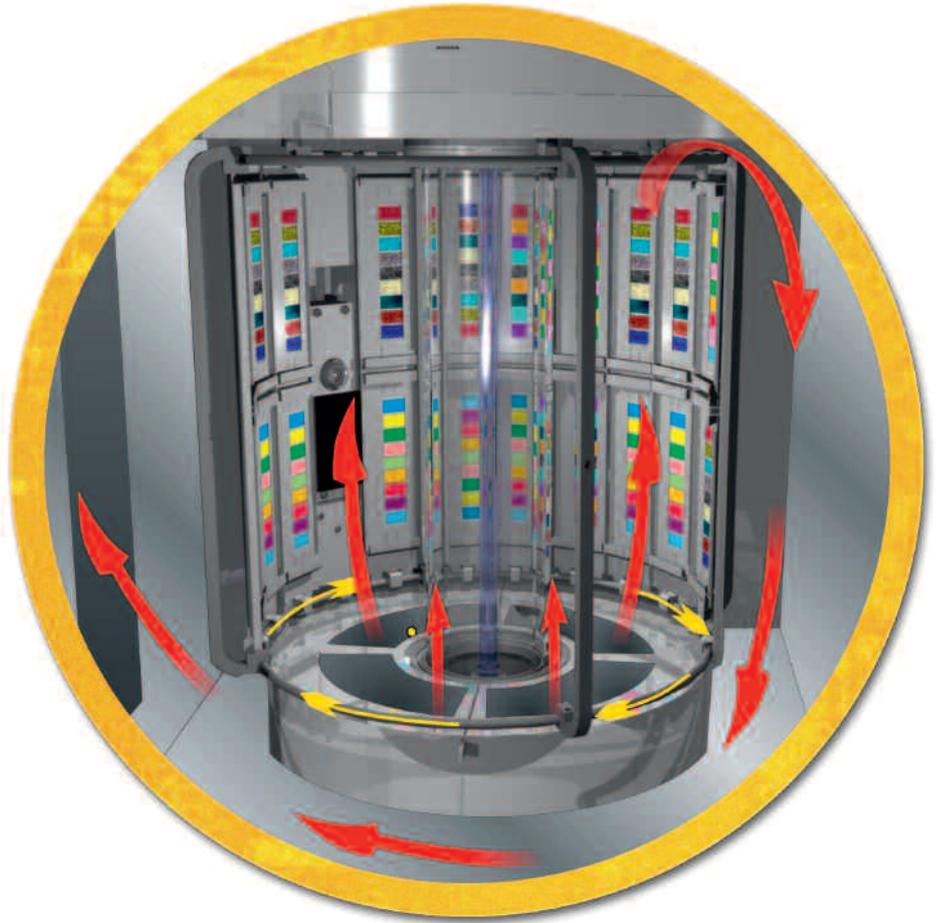


Humidity Control

Humidity control, and temperature control are both required for proper standard lightfastness testing.

The Xenotest® 220 generates relative humidity via an ultrasonic humidification system that produces a homogeneous steam like dispersion. Speed and direction of the airflow have been optimised for the highest uniformity on the sample rack.

A digital humidity sensor guarantees precise control. Additionally, a built in 60 litre water reservoir, enables independent operation without fixed water over a period of 3 to 4 weeks (running ISO 105-B02 conditions).



Schematic Airflow inside the Test Chamber



BST Control on Sample Rack

Temperature Control

Temperature plays an important role impacting degradation and fading rates.

Xenotest 220 controls temperature within narrow tolerances of maximum ± 2 °C, using its proven on-rack-sensor XENOSENSIV®. State-of-the-art double control technology simultaneously controls both BST and CHT.

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Xenotest® 220/220+ Technical Data

Air-cooled xenon lamp	2200 W
Guaranteed lamp life	1500 hours
Maximum exposure area	2310 cm ²
Specimen holder	19
Test positions on sample rack	38
Specimen dimension	135 × 45 mm
Light monitor	XENOSENSIV®
Irradiance range (300–400 nm)	30–50 W / m ²
Humidity range (light cycle)	20–85 %
Water reservoir	60 litre
Water consumption (@ ISO 105-B02)	approx. 2–3 l/day
Simultaneous BST + CHT control	automatic
BST range (light cycle)	40–100 °C
CHT (light cycle)	up to 65 °C
Parameter check	●
Serial interface	●
Touch screen control panel	●
Memory card interface	●
Ethernet interface incl. XenoTouch Add-ons	●
Chamber view window	● ●

- Standard
- 220+ Standard
- 220 Optional

Physical & Electrical Data

Width x Depth x Height	900 × 780 × 1800 mm
Weight	approx. 280 kg
Electrical	230 V ±10 %, 50/60 Hz
Maximum power consumption	approx. 5 kVA
Amperage	16 A

Filter Systems & Standards

Non-aging XENOCHROME® 320 filters + UV special glass cylinder
(ISO 105-B02, GB)

Non-aging TM16 filters + UV special glass cylinder
(AATCC TM16, TM169)