



XENON ACCELERATED WEATHERING TEST CHAMBER - TORONXTC™-2200H

Xenon Accelerated Weathering Test Chamber - ToronXTC™-2200H is a high-performance xenon aging test chamber designed to simulate the damaging effects of full-spectrum sunlight, high temperatures, and humidity. This chamber can replicate the aging effects of months or even years of outdoor exposure in just a few days or weeks, making it ideal for accelerated testing.

APPLICATIONS

Standards

1. **ASTM G151**: Standard Practice for Exposing Nonmetallic Materials in Accelerated Test Devices That Use Laboratory Light Sources
2. **ASTM G155**: Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials
3. **ISO 11341**: Paints and Varnishes - Artificial Weathering and Exposure to Artificial Radiation - Exposure to Filtered Xenon-Arc Radiation
4. **ISO 4892**: Plastics - Methods of Exposure to Laboratory Light Sources - Part 2: Xenon-Arc Lamps
5. **SAE J2527**: Performance Standard for Accelerated Irradiation of Automotive Exterior Materials by Xenon Arc Lamp Radiators
6. **SAE J2412**: Accelerated Aging of Automotive Interior Components Using a Controlled Irradiance Xenon Arc Device
7. **GB/T 1865**: Paints and Varnishes - Artificial Weathering and Artificial Radiation Exposure - Filtered Xenon Arc Radiation
8. **GB/T 16422.1**: Plastics - Laboratory Light Source Exposure Test Method - Part 1: General
9. **GB/T 16422.2**: Plastics - Laboratory Light Source Exposure Test Method - Part 2: Xenon Arc Lamp
10. **GB/T 16259**: Building Materials - Artificial Climate Accelerated Aging Test Method
11. **GB/T 8427**: Textiles - Test for Colour Fastness - Colour Fastness to Artificial Light: Xenon Arc
12. **GB/T 12831**: Vulcanized Rubber - Artificial Climate (Xenon Lamp) Aging Test Method
13. **GB/T 16991**: Textiles - Color Fastness Test - High Temperature Resistance to Artificial Light - Color Fastness and Anti-Aging Properties (Xenon Arc)

14. **GB/T 14576:** Textiles - Test for Color Fastness - Composite Color Fastness to Light and Perspiration
15. **GB/T 15104:** Decorative Veneer - Veneer Wood-Based Panel
16. **GB/T 2423.24:** Environmental Test - Part 2: Test Methods - Test Sa Simulates Solar Radiation on the Ground and Its Test Guidelines

Advantages

1. **Powerful Xenon Lamp:** Equipped with a 1.8 KW air-cooled long arc Xenon lamp(Made in US) for reliable and efficient testing.
2. **User-Centric Design:** Optimized for ease of use, offering the best solutions for sample handling and loading.
3. **Comprehensive Testing Capabilities:** Fully functional chambers designed for aging resistance, colorfastness, and lightfastness, adhering to all major industry standards.
4. **Premium Components:** Premium functional parts to ensure top-notch performance and durability.
5. **Cost-Effective:** Delivers high-quality performance with affordable purchase and operating costs.
6. **High-Quality Services:** Offers robust aging test chambers along with professional testing services.
7. **Expert Support:** Backed by an experienced team for installation, maintenance, training, and consulting.
8. **User-Friendly Interface:** Simple, intuitive programming for seamless operation.
9. **Enhanced Safety:** Equipped with over ten protection configurations for greater operational security.
10. **Full-Spectrum Sunlight Simulation:** Accurately reproduces ultraviolet, visible, and infrared light for realistic environmental testing.
11. **Smart Diagnostics:** Includes self-diagnostic alarms and maintenance reminders to ensure smooth and efficient operation.

This test chamber offers a perfect blend of advanced technology, reliability, and cost-efficiency, making it an ideal choice for demanding aging and durability assessments.

FEATURES

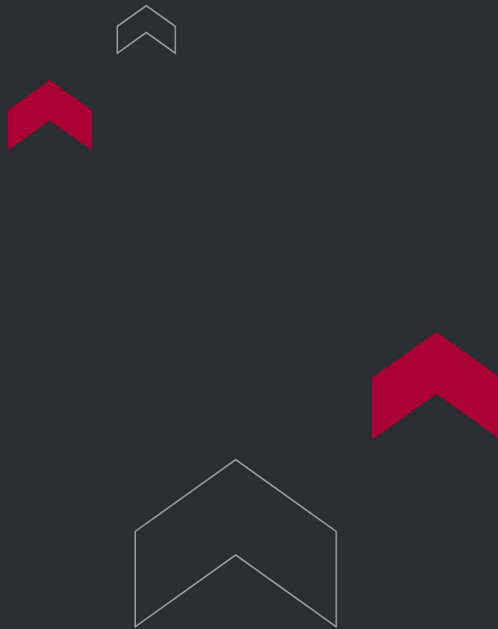
- **Xenon Light Source & Filter:** Made in United States, accurately simulates the full spectrum of sunlight for optimal and realistic testing.
- **Uniform Irradiation:** Drum-shaped sample holder rotates automatically, ensuring even energy distribution across all test panels.
- **Automated Energy Control:** Sun Eye Control System provides precise and stable irradiation energy, compensating for variations due to lamp aging. Adjustable range:
 - 0.30 W/m²-0.75 W/m² @ 340 nm
 - 0.5 W/m²-1.35 W/m² @ 420 nm
 - 0 W/m²-90 W/m² @ 300-400 nm
- **Long Lamp Life:** Xenon lamp lasts up to 1,500 hours, meeting the highest international standards.
- **Flexible Filters:** Multiple internal and external optical filters available, which can be replaced during testing to maintain light transmittance and meet international test standards.
- **Precise Environmental Control:**
 - Temperature control (black panel, black scale, or inner chamber temperature) with a range from room temperature to 100°C.
 - Irradiance control at 340 nm or 420 nm.
 - Humidity control from 20% to 95%.
- **Customizable Test Programs:**
 - 9 programmable test programs (each with 10 data segments).
 - 6 preset international standard programs.
- **Data Collection & Storage:** Test data automatically recorded in Excel format, exportable via USB for hands-free operation.
- **User-Friendly Touch Screen:** Allows easy parameter setup and real-time monitoring of the test process.
- **Precision Sensors:** High-precision Pt 100 black panel and black scale temperature sensors for accurate temperature control.

- **Alarm Protection:** Alerts for issues such as large irradiance errors, high cooling water temperature, and low water flow.
- **Ease of Use & Low Maintenance:** Simple to use, virtually maintenance-free, and designed for any testing environment.
- **Adjustable Test Plate Frame:** Ensures uniform irradiation and better data consistency across tests.
- **Accelerated Aging:** Exposes samples to sunlight equivalent to peak summer noon hours, 24/7, speeding up the aging process.
- **Cost-Effective:** Low purchase price, affordable lamp costs, and low operating expenses, making the ToronXTC-2200H accessible for even small labs.

TECHNICAL SPECIFICATIONS

Specification	Details	
Xenon lamp	1.8KW air-cooled long arc Xenon lamp(Made in US)	
Filter	Daylight filter (Window glass filter or UV extension filter also available)	
Exposure area	2200 cm ² 22pcs standard samples of 150mm×70mm can be exposed to the sun at one time)	
Irradiance monitoring point	340nm, 420nm, 300nm~400nm (300nm 800nm)	
Automatic irradiation control	(0.30W/m ² -0.75W/m ²) @340nm (0.5W/m ² -1.35W/m ²) @420nm (0W/m ² -90W/m ²)300nm-400nm	
Lamp life approx.	1500 hours	
Temperature range	Black panel	Black label
	RT+30°C 100°C	RT+30°C 100°C
Cabinet air	RT+10°C 65°C	

Specification	Details
Humidity range	Light☐ 10%-75% spray or dark cycle☐ 10%-95%
Note: The temperature range is slightly different depending on the external environment andtheset irradiance	
Sample Rotating Speed	1r/min☐ around the center of the tube☐
Sample Tray Load Capacity	Up to 4.5kg
Inlet Pressure	2.8-5.5 bar
Influent Water Purity	Deionized water with conductivity < 0.1 μS and silica content < 0.2ppm
Water Consumption	1.0 L/min (Spray) 8 L/day (humidified)
Humidification gas source	0.3~0.8Mpa
External Dimensions(W×D× H)	865mm×800mm×1780mm
Weight approx.	240kg
Voltage	380V☐ 50Hz



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