



XENON ACCELERATED WEATHERING TEST CHAMBER - TORONXTC™-1000

Xenon Accelerated Weathering Test Chamber - ToronXTC™-1000 is an efficient, small-scale xenon lamp aging test chamber designed for precision and affordability. Equipped with a 1.8 KW low-power air-cooled xenon lamp and a mirror reflection system, it ensures optimal and uniform radiation energy distribution within the chamber.

APPLICATIONS

Standards (Without spray, humidity control)

1. **ASTM D3451**: Testing of Paint Powders and Powder Coatings
2. **ASTM D3794**: Testing of Coil Coatings
3. **ASTM D6577**: Overview of Testing Industrial Protective Coatings
4. **ASTM D6695**: Xenon Arc Exposure of Paints and Related Coatings
5. **ASTM G151**: Overview of Exposure to Non-Metallic Materials
6. **ASTM G155**: Xenon Arc Test Equipment for Exposure of Non-Metallic Materials
7. **ISO 4892**: Plastics - Laboratory Light Exposure Methods
8. **ISO 11341**: Paints and Varnishes - Artificial Aging and Exposure to Filter Radiation from Xenon Lamps
9. **JKS K 5600-7-7**: Coatings Test Methods - Part 7: Accelerated Weathering Test (Exposure to Filtered Xenon Arc Lamp Radiation)

Advantages

Utilizing a 1.8 KW air-cooled long arc xenon lamp, this system incorporates German engineering to deliver unparalleled performance. Designed with user convenience in mind, it ensures seamless sample loading for various testing needs.

Key features include:

1. Comprehensive testing for weathering, colorfastness, and lightfastness, meeting major international standards.
2. High-quality components for superior reliability.
3. Exceptionally cost-effective purchase and operational expenses.
4. Precision-built aging test equipment and reliable testing services.
5. A dedicated after-sales team offering support with installation, maintenance, training, and consulting.
6. An intuitive user interface, simplifying programming and operation.
7. Durable xenon lamps with a lifespan of up to 1,500 hours, providing excellent value.
8. Optional optical filters to comply with diverse domestic and international testing standards.

This state-of-the-art solution ensures exceptional results, making it an ideal choice for rigorous testing applications.

FEATURES

- **Xenon Accelerated Weathering Test Chamber - ToronXTC™ -1000** utilizes a US made xenon light source and original filter to simulate the full spectrum of sunlight, ensuring realistic and optimal testing conditions for accurate, reproducible results.
- The **flat structure of the sample rack** ensures even irradiation energy distribution across all test panels, with optional clamping racks for irregular sample types.
- **Fully automated control of irradiation energy** using the Sun Eye control system, compensating for fluctuations caused by lamp aging or other factors. Adjustable irradiance range:
 - 0.30 W/m² to 0.8 W/m² @ 340 nm
 - 0.5 W/m² to 1.5 W/m² @ 420 nm
 - 30 W/m² to 100 W/m² @ 300-400 nm.

- **Xenon lamp life** of up to 1,500 hours, meeting the highest international standards.
- **Optional filters** available: UV extension filter, daylight filter, or window glass filter, meeting multiple domestic and international test standards.
- **Precise irradiance and temperature control**, with the ability to target blackboard temperature and adjust irradiance manually.
- **Real-time data collection and storage**: Automatic test data is recorded in Excel format and can be exported via USB, enabling truly unattended operation.
- **User-friendly touch screen interface**, allowing easy configuration of test parameters and real-time monitoring of the testing process.
- **High-precision Pt 100 blackboard and black mark temperature sensors** for automatic temperature control (room temperature to 90°C).
- **Alarm protection**: Alerts for large irradiance errors, overheating, and overloads.
- **Compact and easy to use**, the **ToronXTC™ -1000** is designed to be placed directly on a desktop, offering virtually maintenance-free operation.
- **Adjustable test plate frame position** ensures uniform irradiation and enhances data comparability across test panels.
- **Rapid testing results**: The chamber simulates outdoor sunlight exposure at maximum intensity, accelerating sample aging by exposing test panels to continuous sunlight equivalent to a summer noon.
- **Affordable**: The **ToronXTC-1000** offers exceptional cost-effectiveness with a low purchase price, affordable lamp replacements, and low operational costs, making xenon arc testing accessible even for smaller labs.

TECHNICAL SPECIFICATIONS

Specification	Details
Xenon Lamp	1.8KW air-cooled long arc Xenon Lamp (Made in US)
Filter	UV extension filter (can also choose daylight filter or window glass filter)
Exposure area	1000 cm ² (9 pieces of 150mm×70mm standard samples can be exposed to the sun at one time)

Specification	Details	
Irradiance monitoring point	340nm, 420nm, 300nm~400nm (Choose one)	
Irradiance range	0.3W/m ² ~0.8W/m ² (@340nm) 0.5W/m ² ~1.5W/m ² (@420nm) 30W/m ² ~100W/m ² (300nm~400nm)	
Lamp life approx.	1500 hours	
Temperature range	Category	Blackboard
	Light cycle	RT+15°C~90°C
Temperature fluctuation	±1°C	
Temperature uniformity	2°C	
Temperature deviation	≤±1°C	
Dimensions	W950×D570×H540mm	
Weight approx.	60kg	
Voltage	220V, 50Hz, maximum current 16A (110V is also available)	



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