

SunTest Xenon Test Chamber Pro Series



The Presto SunTest Xenon Test Chamber Pro Series is an advanced environmental testing system designed to simulate the damaging effects of natural sunlight, temperature, and moisture on materials. By utilizing a high-performance xenon arc lamp along with precision-controlled irradiance and environmental conditions, the chamber replicates real outdoor weathering with exceptional accuracy.

This system is ideal for evaluating the durability, color stability, and aging characteristics of materials such as plastics, coatings, textiles, automotive components, and packaging products.

Equipped with a rotating drum sample holder, the chamber ensures uniform exposure of all specimens to light and environmental conditions, delivering highly reliable and repeatable test results. Its intelligent control system allows users to precisely regulate irradiance, temperature, humidity, and spray cycles, making it suitable for a wide range of international testing standards.

Features

- High-performance air-cooled xenon arc lamp ensuring accurate sunlight simulation
- Advanced closed-loop irradiance control system for consistent light intensity
- Rotating drum sample holder for uniform exposure across all samples
- Multiple irradiance control options: 340 nm, 420 nm, and full spectrum ranges
- Selection of Daylight, Window Glass, and Extended UV filters
- Programmable test cycles with multi-segment configuration

- Precise temperature control (BPT, BST, and chamber temperature) using Pt100 sensors
- Integrated humidity control system for realistic environmental simulation
- Water spray function with adjustable spray duration and intervals
- User-friendly touchscreen interface for easy operation and monitoring
- Real-time data logging with USB export (Excel format)
- Comprehensive safety and alarm system for over-temperature, irradiance deviation, humidity errors, and system faults
- Optional auxiliary cooling system for low-temperature testing up to 20°C
- Self-calibration capability for irradiance and temperature parameters

Technical Specifications

Parameter	Specification
Light Source	1.8 kW Xenon Arc Lamp (Air-cooled)
Lamp Origin	Imported (High stability & repeatability)
Lamp Life	Approx. 1500 hours
Exposure Area	2200 cm ²
Sample Capacity	Up to 22 samples (150 x 70 mm each)
Irradiance Control	340 nm/420 nm/300-00 nm / 300-00 nm
Irradiance Range (340 nm)	0.3-0.75 W/m ²
Irradiance Range (420 nm)	0.5-1.35 W/m ²
Full Spectrum (300-00 nm)	30-90 W/m ²
Full Spectrum (300-00 nm)	310-780 W/m ²
Temperature Range (BPT/BST)	Ambient to 100°C
Chamber Temperature Range	Ambient to 65°C
Humidity Range	10%-5% (Light), 10%-5% (Dark)
Control System	Closed-loop automatic control
Sensor Type	Pt100 High Precision Temperature Sensor
Spray Function Data Interface	Adjustable spray time and interval
Programming Capability	USB (Excel data export)
Dimensions (WxDxH)	10 programs with up to 10 segments each
Weight	860 x 800 x 1770 mm
Power Supply	Approx. 200 kg
Power Consumption	380V, 3-Phase, 50 Hz
Compressed Air	5.5 kW
Requirement	0.5 MPa, Oil-free air

Compliance with International Standards

The Presto Xenon Test Chamber is designed in accordance with major global testing standards, including:

- ISO 4892 Series
- ISO 16474 Series
- ISO 11341
- ASTM G155, ASTM G151
- ASTM D6695, ASTM D3794, ASTM D4303
- SAE J2412, SAE J2527

Applications

- Plastic and polymer weathering tests
- Paints and coatings durability analysis
- Automotive interior and exterior material testing
- Textile and fabric light fastness testing
- Packaging material stability evaluation