

UV Weathering Test Chamber



I.Equipment use

The test equipment simulates damage caused by solar ultraviolet light, and the material is subjected to weather resistance test by exposing the test material to light under controlled high temperature. It uses ultraviolet light tubes to simulate the radiation of sunlight, and condenses and sprays water to simulate dew and rain. In just a few days or weeks, UV irradiation equipment can be reproduced outdoors for months or even years. Damages that occur in time, including fading, color change, tarnishing, chalking, cracking, cracking, wrinkling, blistering, embrittlement, strength reduction, oxidation, etc., the test results can be used to select new materials, improve the present There are materials, or changes in the formulation of the evaluation material.

II. Product description

Sample restrictions:

- This test equipment is prohibited:
- Testing and storage of samples of flammable, explosive and volatile substances
- Testing and storage of corrosive substance samples
- Testing or storage of biological samples

Test and storage of strong electromagnetic emission source samples

III. Technical indicators

3.1 Volume and size:

Studio size (mm): 1100 × 300 × 400 (D width × W depth × H height)

Outer box size (mm): 1300 × 500 × 1480 (D width × W depth × H height)

3.2 Irradiance Control System:

Irradiation (UVA-340) when using UVA-340 lamps

UVA-340 irradiance range: 0.45 ~ 1W / m² adjustable (at the peak of 340nm)

Extend lamp life

3.3 UV lamp parameters:

Lamp type: 8 sets of UVA-340 (315 ~ 400nm) lamp

Lamp brand: US imports

Center distance of the lamp: 70mm

Center distance between test article and lamp: 50±3mm

Irradiation intensity: output according to the set light intensity

3.4 Temperature and humidity indicators:

Temperature range: adjustable at room temperature +10~70°C

Humidity range: ≥95% RH

Temperature fluctuation: ±3 °C

Temperature resolution: 0.1 °C

3.5 Blackboard Thermometer:

Measuring range: 45 ~ 70 ° C

Tolerance: $\pm 3^{\circ}\text{C}$

3.6 Temperature control mode: PID self-tuning temperature control mode

3.7 Technical features:

Provides comprehensive and detailed real-time monitoring and curve recording of important test parameters such as irradiance, temperature and time (the controller has a paperless recorder function), and can also generate reports and curve prints through a computer.

Irradiation/condensation/water spray tests can be performed separately, and any combination of irradiation/condensation/water spray tests can be programmed.

Adopting the Korean ternary level 5.7-inch true color touch screen control system, it has good stability, monitoring, operation and maintenance.



It provides a life reference for the imported ultraviolet lamp with expensive materials (the lamp is a consumable, and the service life is about 1600 hours), which is convenient for the user to confirm the replacement time of the lamp and save the use cost. Through the irradiance measurement and control device (by adjusting the voltage), the irradiance can be measured and controlled, the irradiance is automatically stabilized at the set value, and the service life of the lamp tube is greatly extended.

The automatic water supply and drainage design is combined with high-cost mercury mercury to ensure the flow rate and uniformity of the water spray.

Most of the main components use international brands, and a small number of domestic brands have improved the safety and reliability of the products. (See the list of main accessories included.)

Installation and wiring of the electrical parts of the equipment is carried out in accordance with international electrical standards.

Improve professional after-sales service.

3.8 Compliance with standards:

GB/T14552-2008 "National Standard of the People's Republic of China - Plastics, Coatings, Rubber Materials for Machinery Industry - Artificial Climate Accelerated Test Method", a, fluorescent UV / condensation test method.

GB/T16422.3-1997 GB/T16585-96 Related analytical methods.

GB/T16585-1996 "National Standard of the People's Republic of China - Vulcanized Rubber Artificial Weathering (Fluorescent UV Lamp) Test Method".

GB/T16422.3-1997 "Plastics laboratory light source exposure test method" and other corresponding standard terms and design standards.

In line with international testing standards: ASTM D4329, ISO 4892-3, ISO 11507, SAE J2020 and other current UV aging test standards.

Other standards are not listed in detail, please check with our technical department if necessary.