

UV Weather Resistance Test Chamber

Serving the Scientific, Medical and Research industries since 1945

LABEC

LABEC UV Weather Resistance Test

Chamber is equipped with a fluorescent UV lamp which can completely simulate the UV spectra of sunlight, exposes materials to alternating cycles of UV light and moisture at controlled, elevated temperatures. It stimulates dew and rain with consideration for humidity and/or water spray.

The UV Weather Resistance Test Chamber is the world's most widely used weathering tester to test types of damages include colour change, gloss loss, chalking, cracking, crazing, hazing, blistering, strength loss and oxidation.

Models:

MODEL UV/BASIC: UV/basic fluorescent UV lamps and a condensation system for moisture simulation, does not include the SOLAR EYE irradiance control.

MODEL UV/CW: Some industry test methods specify the use of cool white fluorescent lamps for indoor photostability testing. To reproduce these indoor light conditions, the UV/cw uses ordinary cool white fluorescent lamps. It has a SOLAR EYE irradiance control system that monitors and controls visible light output, rather than UV.

MODEL UV/SPRAY: The UV/spray has the same functions as a standard UV/se, but also includes a water spray system. Short periods of spray can be used to create a thermal shock. Longer periods can be used to achieve mechanical erosion.

MODEL UV/SE: UV/se is the most popular model featuring the SOLAR EYE Irradiance control, for precise maintenance of UV light intensity. The UV/SE tester uses a proven condensation mechanism to simulate outdoor moisture attack



The Solar Eye System:

Most UV Weather Resistance Test Chambers are equipped with solar eye irradiance control. It is a precision control system that automatically maintains light intensity through a feedback loop. The controller monitors UV intensity and compensates for lamp aging and variability by adjusting power to the lamps.

- **Extends Lamp Life:** Operates lamps until set point can't be maintained, reduces maintenance.
- **Accelerate Results:** Maximises effects with high irradiance, Operator at 75% higher irradiance than noon, summer sunlight.
- **Controls Irradiance:** Monitors light intensity, maintains preprogrammed intensity, maximises repeatability and reproducibility.



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Model: Q-UV-WRT-180

Specifications

Workroom Dimensions	1150×400×400 (W×H×D) mm
Exterior Dimensions	1312×1500×500 (W×H×D) mm
Controller	LCD touch screen control, programmable of temperature, humidity, UV (sun), spray (rain) and time. Maximum 999 cycles.
Temp. Range	RT+10°C~70°C
Humidity Range	≥95%R.H
Temp. Resolution	0.01°C
Temp. uniformity	≤±2°C
Humid. fluctuation	≤±2%R.H
Humid. Uniformity	≤±2%R.H
Blackboard temperature	63°C~83°C±0.3°C
Distance between Lamps	70mm
Distance of Lamps and Samples	50mm
Lamp power	40W
UV wavelength	290nm~400nm
Specimen standard dimension	150×75 (mm)
Number of Specimens	48 pcs
Range of Radiation	0.5-0.83w/m ² /nm

UV Lamps

UVA-340	Especially suitable for comparison tests of the different formulations. Recommended for most plastics, textiles, paints, pigments, and UV stabilizers and other products testing, as also outdoor test results correlation test.
UVB-313EL	Suitable for the quality control and research, development applications, recommended for the testing of some durable materials, such as roofing paint.
QFS-40 (F40 UVB)	Test the vehicle exterior paint.
UVA-351	Suitable for the glass solar UV simulation, Recommended for use in automotive interior parts, textiles and ink testing.