

Time and environmental conditions cause irreversible damage to the structure and properties of polymeric materials. These changes are referred to as aging, degradation or deterioration.

The manufacturer is particularly interested in how the developed material will respond to the real conditions to which it will be exposed. However, in practise it is not possible to wait ten years to verify the lifetime and quality of materials. Tests of material aging are used to simulate the long-term effects of conditions amplified in compare with real environment in a relative short period of time.

In our xenon arc chamber Q-SUN Xe-3 we can reproduce in a few days or weeks the full spectrum of damage caused by sun and rain, which would have appeared on the product usually after several months or years of use in outdoor conditions.

Tester Q-SUN Xe-3 is a fully equipped chamber which is resistant to light, color-fast and photostable. It utilizes three separate xenon lamps for a large capacity. Tester's slide-out specimen tray is 451mm x 718mm and it is useful for large three-dimensional parts or components. It offers standard humidity control and optional spray and chiller features.



Test chamber characteristics:

- relative humidity control with feedback,
- black panel temperature control,
- control of the inside temperature in the test chamber during the test,
- programmable spraying of specimen by demineralized water,
- continuous radiometric control of the intensity of radiation and subsequent checkout of the sample exposed,
- testing of large specimen.

Tester's Q-SUN Xe 3HS normal working range of radiation intensity is within the range simulating real radiation at a wavelength of 295 to 3000nm, with continuously adjustable value up to 1450 W/m², using a system of filters for testing of indoor or outdoor conditions (behind the window glass).