ANALYSES

accelerated ageing

Q-Sun test (Xenon – Q-lab)

Principle

Accelerated ageing uses aggravated conditions to speed up the normal aging processes of items. It is used to help determine the long term effects of expected levels of stress within a shorter time, usually in a laboratory by controlled standard test methods.

The simulation is determined by a certain number of sun light kilolangley.

Aging tests are performed in different appliances (lamps and ambient conditions) according to ASTM, ISO and DIN standards.

Applications

- **exposure of plastics for outdoor applications to accelerated ageing.**

Method

In the Q-SUN test, the accelerated ageing takes place under XENON light that reproduces the entire solar spectrum and simulates in an accelerated manner, the damage caused by sunlight and climatological conditions.

In the chamber, the sample is exposed to Xenon light during several hours, under dry and humid conditions. The test chamber is equiped with a sprinkling system to moisture the samples (rain simulation). The relative humidity in the test chamber can also be adapted.

Afterwards, the relevant properties of the samples are determined: colour, mechanical properties, etc.

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