

Alternate Solution Standard Report

General

Various standards apply a carbon arc test for labels that are required to have UV resistance. Newer technology for UV resistance of labels now includes xenon arc testing. Various standards are updating test criteria to the xenon arc test and it provides equivalent outcomes.

This information bulletin is to enable use of xenon arc test in lieu of carbon arc test whenever carbon arc test is stipulated.

Requirement

For labels that are required to have UV resistance, testing method using xenon arc may be applied as an alternate to Carbon Arc testing. The test for xenon arc is as follows:

Markings on external parts of equipment intended for outdoor use shall remain legible after being exposed to solar radiation.

This requirement does not apply to markings that are moulded in, engraved, laser engraved, or stamped and, either, raised above or have a depth below the surface of at least 0.25 mm.

Conformance is determined by the IEC 60068-2-5 procedure Sb 1, using a xenon-arc lamp as the radiation source.

The test conditions shall be as specified in Table 5 of IEC 60068-2-5. Both the narrowband, 400 irradiance level and the black panel temperature shall be controlled.

The test shall be in cycles for a total duration of 515 h.