



Faster Time to Market with “UL’s Specialized Long Term Thermal Aging Polymer Variation Test Method”

UL evaluates plastics material for an array of properties. Testing can be performed for material flammability (burning characteristics), ignition characteristics from various thermal and electrical sources, electrical tracking and other electrical characteristics, as well as analytical testing. In addition, the effect of long-term exposure to elevated temperature (air-oven aging), water, ultraviolet light, cold and other variables on property-retention can be evaluated.

One of the properties which material can be examined for is thermal aging. UL 746B (Safety of Polymeric Materials -- Long Term Property Evaluations) tests material with respect to retention of certain critical mechanical and electrical properties. If a material has been investigated under the thermal-aging program, the relative temperature index (RTI) correlates to a reference material which has acceptable service experience. This testing program is also known as Long Term Thermal Aging (LTTA) Program.

If a material has not been investigated under the LTTA program, the relative temperature index is based on the generic class of the material. A tabulation of the temperature indices according to the generic material class is included in UL 746B and is based on the past field-test performance and chemical structure.

What does the Specialized LTTA Method for Polymer Variation Mean?

What happens when modifications are made to a tested and certified compound with an elevated RTI? In the past, the only option was to run these new formulations through a traditional LTTA testing cycle.

Today, UL can offer manufacturers the opportunity to help reduce test time for polymer variations when LTTA testing is required. A new Specialized LTTA method has been created to help address changes in compound formulations per UL 746A. These changes reflect addition, deletion, replacements and changes in the ingredients as detailed in UL 746A, table 9.1.

The new Specialized LTTA method includes a study of analytical data, performance data, the chemistry of the compound and its relationship to the degradation mechanisms of the reference material as well as of the effect the modifications have made to the compound. This new approach provides an opportunity for shorter test time.

This innovative concept has been designed to help customers keep pace with changing market trends, which require major flexibility, agility and speed.

Find out how the new Specialized Long Term Thermal Aging (LTTA) Polymer Variation program can help you. Contact your UL representative for more detailed information. You can also visit: www.ul.com/Plastics or send us an email to: imdquote@ul.com

For more information: W: ul.com/Plastics / E: imdquote@ul.com