

Subject 746D

August 31, 2018

SUMMARY OF TOPICS

The following changes in requirements to the Standard for Polymeric Materials – Fabricated Parts, UL 746D, are being proposed for preliminary review and comment only:

1. For Preliminary Review Only: Revision of Paragraph 10.2.6 With Respect to Relative Thermal Index (RTI) Assignment for Recycled Plastics with Consistent Identification

COMMENTS DUE: September 14, 2018

This proposal is for review and comment only (no ballot at this time). Please note that comments on a preliminary review document will not receive a response from the proposal author through CSDS. Instead, the proposal author will be asked to review the comments and adjust the proposals and/or supporting rationale as the author determines to be appropriate. The preliminary review process is an informal mechanism that provides authors with the opportunity to refine their proposals before they advance to the next stage in UL's standards development process.

In some cases, the author of the proposals may choose to discontinue them. In this case, the author need not do anything after preliminary review has ended. Normally, the next step in the process is the more formal STP ballot and stakeholder review process. Only comments posted during the STP ballot and stakeholder review process will be provided with a response in CSDS.

For your convenience in review, proposed additions to existing requirements are shown underlined and proposed deletions are shown ~~lined-out~~.

1. For Preliminary Review Only: Revision of Paragraph 10.2.6 With Respect to Relative Thermal Index (RTI) Assignment for Recycled Plastics with Consistent Identification

RATIONALE

Proposal submitted by: Anil Ks, SABIC Innovative Plastics US LLC

This proposal was discussed in the UL 746 Standard Technical Panel meeting held in June 2018. Based on the comments received from the members, minor edits are incorporated in the proposal.

UL 746D, Section 10.2 includes requirements for Recycled plastics with consistent identification. Section 10.2.6(a) states that If the identification test results of the recycled plastic favorably compares to a related virgin resin with an elevated RTI, the elevated RTI equal to the virgin resin is to be assigned to the Recycled plastic through a 2-point Long Term Thermal Aging program. Considering that the formulation of the recycled plastic with consistent ID's is comparable to a related virgin material that has elevated RTI ratings in compliance with UL 746B, and the ID tests of virgin material and recycled material are in agreement, a one-temperature and single-point aging test for 2000 hours (as indicated in UL 746B, Section 20.2.6) can also be considered acceptable for evaluating the RTI of the Recycled material.

It is the proposal submitter's opinion that this proposal represents a test revision and clarification.

PROPOSAL

10.2.6 An elevated relative thermal index (RTI) shall be assigned through a Long Term Thermal Aging program per the Standard for Polymeric Materials – Long Term Property Evaluations, UL 746B.

- a) If the identification test results of the recycled plastic favorably compares to a related virgin resin with an elevated RTI, the elevated RTI equal to the virgin resin is to be assigned to the recycled plastic through a 2-point Long Term Thermal Aging program (in accordance with UL 746B) or an One-temperature and single-point aging test for 2000 hours (in accordance with UL 746B) that results in the same RTI, using the virgin resin as the control and the recycled plastic as the candidate.
- b) If the identification test results of the recycled plastic do not compare favorably to a related virgin resin with an elevated RTI, an elevated RTI is to be assigned to the recycled plastic through a 4-point Long Term Thermal Aging program.

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