

UNDERWRITERS LABORATORIES INC. CERTIFICATION REQUIREMENT DECISION

This Certification Requirement Decision is prepared by UL LLC. It is normative for the applicable UL Product Certification Program(s); however, it is currently not part of the UL Standard(s) referenced below.

Product Category (CCN): UBJY2
Standard Number: UL 1030
Standard Title: Standard for Sheathed Heating Elements
Edition Date: March 31, 2015
Edition Number: 8
Section / Paragraph Reference: Multiple
Subject: Medium Voltage Sheathed Heating Elements

DECISION:

SA7.6 Compliance to the following requirements are considered to fulfill the requirements of SA7.1 – 7.4.

SA7.6.1 Electrical insulation shall be composed of materials that have been shown by service life experience or test to have suitable electrical, dielectric, moisture resistant, and thermal aging properties. Compliance shall be demonstrated by conducting the Dielectric Voltage-Withstand Test, SA10, on the material alone or as part of the element assembly. Compliance shall also be determined by one or more of the following:

- a) Materials have been evaluated and found acceptable in accordance with the applicable requirements covering electrical property considerations in the Standard for Polymeric Materials - Use in Electrical Equipment Evaluations, UL 746C;
- b) Phenolic, ceramic, porcelain, and cycloaliphatic epoxies are able to be used for the purpose of supporting live parts without additional evaluation; and/or
- c) The manufacturer's declaration with supporting documents such as test reports to established standards or documentation of elements using the materials with service life experience reports.

SA10.2 When testing electrical insulation in accordance with SA7.2, a representative sample of the material can be tested alone or as part of the element assembly.

RATIONALE FOR DECISION:

This Certification Requirement Decision is intended to document an alternative path for the electrical insulation requirements in Supplement SA. This alternative path is based on similar requirements for Medium Voltage Equipment which have already been adopted and utilized across other Medium Voltage Component Standards, such as UL 347 and UL 1004-9. Additional information was obtained from these Medium Voltage Standards to further address electrical insulation requirements at medium voltages, where the material's service life experience or test may be taken into account to determine if the material has suitable electrical, dielectric, moisture resistant, and thermal aging properties.

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