Chromalox®
PRECISION HEAT AND CONTROL

Chromalox responds with innovation to new UL 197 standards.

UL 197 9th Edition titled, "Commercial Electric Cooking Appliances", is a primary safety standard for electric cooking equipment manufacturer's (OEM's) referencing the UL 1030 and UL 499 standards for sheathed electric heating elements. Both UL standards contain test methods and acceptance criteria for recognized components and assemblies.

What's new in UL 197, 9th edition?

- Section 23.1 states, "A heating element shall comply with UL 1030, the Standard for Sheathed Heating Elements, or UL 499, the Standard for Electric Heating Appliances."
- OEM's must now ensure that elements used in their equipment are meeting the design limitations set forth in the respective suppliers UL file.
- Changes to this section are effective in March 2007. However, compliance with the majority of the document is listed for March 2005.

Chromalox responds quickly.

Simply stated, OEM's must now select element end seal materials whose temperature limits are not being exceeded relative to the OEM's element design. These end seal material temperature limits are listed under the Conditions of Acceptability section (C of A's) of each manufacturer's file. For Chromalox, this information can be found in our UL files E198480 for component elements, and E33667 for elements that are installed in assemblies.

To provide OEM's with a solution for virtually any temperature requirement, Chromalox has responded with the introduction of three new UL 1030/499 compliant seals. Two additional options will be available by the end of 2005.

- **V Seal** is rated up to 280 °F (140 °C)
- **V Seal Plus** is rated up to 392 °F (200 °C)
- **A Seal** is rated up to the maximum sheath temperature limit of the sheath material.
- Coming Soon:
  - ⇒ **RX Seal** will be rated up to 600°F (315 °C)
  - ⇒ **G Seal** up to 1100 °F (593 °C)

Chromalox thinks globally.

Chromalox has exceeded the design requirements by developing the seals for the export market. UL 197 also defers to the Resistance to Moisture Test contained in UL 1030/499. In addition, many OEM's need to export and are required to meet stringent international import standards for leakage current, which can be affected by moisture absorbed during transport and extended periods of storage. Our seals also meet international standards such as IEC-60335-2-47 and ensure customer compliance for acceptance.

How can we help?

- If your current end seal material is not meeting the temperature requirements, ask us about alternative material options or design solutions.
- Single occurrence conformance and approval testing with UL is the most cost effective approach. Ask how your company can save money and time by confirming UL 1030/499 compliance in advance.
- We'll be happy to provide a sample built to your specifications. Just ask!

For more information, contact your local Chromalox representative.
1-800-443-2640 or 412-967-3800
www.chromalox.com

Visit our website to download our UL 197 article published in NAFEM Journal, Spring 2005. (located in "Latest News" section)

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