



UL 515

STANDARD FOR SAFETY

Electrical Resistance Heat Tracing for Commercial
and Industrial Applications



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UL Standard for Safety for Electrical Resistance Heat Tracing for Commercial and Industrial Applications, UL 515

First Edition, Dated May 11, 2001

Summary of Topics

These revisions to UL 515 are being issued to update references from UL 2279 to the UL 60079 series.

Text that has been changed in any manner or impacted by UL's electronic publishing system is marked with a vertical line in the margin. Changes in requirements are marked with a vertical line in the margin and are followed by an effective date note indicating the date of publication or the date on which the changed requirement becomes effective.

The new and revised requirements are substantially in accordance with Proposal(s) on this subject dated October 3, 2011.

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MAY 11, 2001

(Title Page Reprinted: November 30, 2011)

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UL 515

**Standard for Electrical Resistance Heat Tracing for Commercial and
Industrial Applications**

First Edition

May 11, 2001

This UL Standard for Safety consists of the First Edition including revisions through November 30, 2011.

Comments or proposals for revisions on any part of the Standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at <http://csds.ul.com>.

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PART I – COMMERCIAL AND INDUSTRIAL ORDINARY LOCATIONS

INTRODUCTION

1 Scope

1.1 These requirements cover electrical resistance heat tracing for commercial and industrial applications as applied to piping, vessels, traced tube bundles, and mechanical equipment. Heat tracing includes heating cables, heating panels, and associated parts. This equipment is intended for installation in ordinary locations in accordance with the National Electrical Code, ANSI/NFPA 70, Article 427, and one of the following installation guidelines:

- a) IEEE Standard for the Testing, Design, Installation, and Maintenance of Electrical Resistance Heat Tracing for Industrial Applications, IEEE 515; or
- b) IEEE Recommended Practice for the Testing, Design, Installation, and Maintenance of Electrical Resistance Heat Tracing for Commercial Applications, IEEE 515.1.

1.2 These requirements also cover commercial applications of electrical resistance heat tracing for deicing roofs, gutters, and pavement. This equipment is intended for installation in ordinary locations in accordance with the following installation guidelines:

- a) National Electrical Code, ANSI/NFPA 70, Article 426; and
- b) IEEE Recommended Practice for the Testing, Design, Installation, and Maintenance of Electrical Resistance Heat Tracing for Commercial Applications, IEEE 515.1.

1.3 Part II of this Standard covers the requirements for heat tracing for use with fire suppression sprinkler or standpipe systems.

1.4 Parts III – IX of this Standard cover heat tracing for use in hazardous locations as defined by the National Electrical Code, ANSI/NFPA 70.

1.5 Heat tracing covered by this Standard is intended for applications where it is exposed to weather, unless specific markings and instructions limit the applications.

1.6 Heat tracing may be installed on metal or rigid plastic pipes. Unless specific recommendations are made for the plastic pipe material to be heated, plastic pipes are considered to have a maximum long-term thermal exposure limit of 50°C (122°F).

1.7 Other related equipment standards:

- a) For Embedded Floor Warming Applications, refer to the Standard for Electric Space Heating Cables, UL 1673.
- b) For Mobile Home Pipe Heating Cables, refer to Outline of Investigation, Subject 1462.
- c) For Residential Pipe Heating Cables, refer to Outline of Investigation, Subject 2049.
- d) For Roof and Gutter De-Icing Cable Units, refer to Outline of Investigation, Subject 1588.

1.7 revised July 20, 2001