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Pub. No. 1-1986

General Principles Upon Which Temperature Indices Are Based in the Rating of Electric Equipment

Pub. No. 98-1934

Guide for the Preparation of Test Procedures for the Thermal Evaluation and Establishment of Temperature Indices of Electrical Insulating Materials

Pub. No. 99-1980

Guidelines for the Thermal Evaluation of Insulation Systems for Electrical Equipment

Pub. No. 101-1987

Guide for the Statistical Analysis of Thermal Life Test Data

American Society for Testing and Materials
1916 Race Street
Philadelphia, PA 19103-1187

Pub. No. D2034

Standard Method for Thermal Evaluation of Rigid Electrical Insulating Materials

Underwriters Laboratories, Inc.
333 Pfingsten Road
Northbrook, IL 60062

Standard 746B-1992
Standard 746C

Polymeric Materials—Long Term Property Evaluation
Polymeric Materials—Use in Electrical Equipment Evaluations

Foreword

The Industrial Laminate Section of the National Electrical Manufacturers Association represents the major manufacturers of industrial laminated plastics. It is an industry group which conducts activities of interest not only to customers and manufacturers, but also to the general public which ultimately benefits in safety, economy, and convenience, through such programs as standardization, safety and engineering, statistics and marketing, and other projects of mutual interest.

Industrial laminates consist of fibrous materials such as cellulose paper, cotton, glass, or asbestos fabric; or a mat of random-laid glass or other fibers impregnated or coated with a thermosetting resin binder and laminated under pressure and high temperature into hard, solid products. These products have useful properties of high mechanical strength, good electrical insulating properties and serviceability at elevated temperatures when used within the range of temperatures indicated in Table 4-1 of this publication.

The Industrial Laminate Section has supported applied research and development at the Johns Hopkins University, the University of Delaware, and at the University of Cincinnati for the following reasons:

- a. The need for an unbiased source of professional quality work on test method development
- b. The testing of industry offerings of industrial laminates for the purpose of guiding NEMA standards for these products
- c. Special studies of technology related to industrial laminates

Much of the work at these university laboratories has been directed at obtaining data for industrial laminates under the special environmental and test conditions of the Underwriters Laboratories Inc. Representatives of UL have cooperated with these NEMA-sponsored laboratories through interlaboratory correlations of test methods, and, as in the case of the publication at hand, have developed relative temperature indices of the laminates.

Comments and suggested revisions should be sent to:

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