



Examination Standard for Cable Fire Propagation

Class Number 3972

April 2021

Foreword

This standard is intended to verify that the products and services described will meet stated conditions of performance, safety and quality useful to the ends of property conservation. The purpose of this standard is to present the criteria for examination of various types of products and services.

Examination in accordance with this standard shall demonstrate compliance and verify that quality control in manufacturing shall ensure a consistent and reliable product.

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1 INTRODUCTION

1.1 Purpose

- 1.1.1 This standard states testing and certification requirements for establishing the classification for cable fire propagation.
- 1.1.2 Testing and certification criteria may include, but are not limited to, performance requirements, marking requirements, examination of manufacturing facility(ies), audit of quality assurance procedures, and a surveillance program.

1.2 Scope

- 1.2.1 This standard is applicable, but not limited, to various types of electrical cables having outer insulating coverings or metallic sheath, which may be used for commercial and industrial purposes including electrical (power and control), data, communication, robotic usage and optical cables, herein called cables. This standard is applicable, but not limited to, any type of round cable or ribbon (flat) cable.
- 1.2.2 This standard does not assess the cable's ability to provide circuit integrity when the cable is subjected to a fire source.
- 1.2.3 This standard is not applicable to cable coatings applied after the cable has been installed.
- 1.2.4 This standard does not evaluate the corrosivity of the products of combustion of these materials.

1.3 Basis for Requirements

- 1.3.1 The requirements of this standard are based on experience, research and testing, and/or the standards of other organizations. The advice of manufacturers, users, trade associations, jurisdictions and/or loss control specialists was also considered.
- 1.3.2 The requirements of this standard reflect tests and practices used to examine characteristics of electrical cables for the purpose of obtaining certification. Electrical cables having characteristics not anticipated by this standard may be certified if performance equal, or superior, to that required by this standard is demonstrated.
- 1.3.3 The classification described in Section 3 is based on the fire propagation characteristics of a cable. Listing requirements prohibit substitution of components in the cable construction without prior authorization. The classification described in Section 4.1.2 is based on the fire propagation and smoke yield characteristics of the cable assembly.

1.4 Basis for Certification

Certification is based upon satisfactory evaluation of the product and the manufacturer in the following major areas:

- 1.4.1 Examination and tests on production samples shall be performed to evaluate
 - the suitability of the product;
 - the performance of the product as specified by the manufacturer and required for certification; and as far as practical,
 - the durability and reliability of the product.