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# **American National Standard for Classification of Pallets and Other Material Handling Products as Equivalent to Wood Pallets**

**ANSI/FM Approvals 4996-2019**

Revision of ANSI/FM Approvals 4996-2013

Approved December 9, 2019

**December 2019**

# Foreword

NOTE: This foreword is introductory only and is not part of American National Standard/FM Approvals 4996.

This standard sets fire performance requirements for pallets and other material handling products so that they can be assigned a classification as equivalent to wood pallets in an effort to determine the demand on a sprinkler system in fire situations.

This American National Standard has been developed by the canvass method of standards development of the American National Standards Institute (ANSI). FM Approvals is an ANSI-accredited standards developing organization (SDO).

Approval of an American National Standard requires verification by ANSI that the principles of openness and due process have been followed and that a consensus of those directly and materially affected by the standard has been achieved. Consensus requires that all views and objections be considered, and that a concerted effort be made toward their resolution. Consensus is established when, in the judgment of the ANSI Board of Standards Review, substantial agreement has been reached.

The American National Standards Institute does not develop standards nor will it in any circumstances give an interpretation of any American National Standard. Requests for interpretations of this test standard should be addressed to FM Approvals.

ANSI regulations require that this American National Standard shall be revised, reaffirmed or withdrawn within five years of the date of publication.

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## 1. INTRODUCTION

### 1.1 Purpose

- 1.1.1 This standard states test requirements for the classification of pallets and other material handling products as equivalent to wood pallets.

### 1.2 Scope

- 1.2.1 This standard sets fire performance requirements for pallets and other material handling products so that they can be assigned a classification as equivalent to wood pallets.
- 1.2.2 This standard specifically addresses pallets and other material handling products. Totes, boxes and similar products are not included in the scope of this standard.
- A. The maximum size of the pallet or other material handling products is 16 ft<sup>2</sup> (1.5 m<sup>2</sup>) and the maximum aspect ratio of length to width is 1.35. “Half” and “quarter” size pallets may be tested by testing multiple stacks of pallets provided that the test area is less than or equal to the maximum allowed area or aspect ratio. For example, a half size pallet may be equal to ½ of the preferred overall size defined in B-2.1 (40 to 24 in. (1.02 to 0.61 m)).
- 1.2.3 Sprinkler protection requirements for pallets and other material handling products that are classified as equivalent to wood pallets are not included or determined in this standard.

### 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, and loss control specialists was also considered.

### 1.4 System of Units

Units of measurement used in this standard are United States (U.S.) customary units. These are followed by their arithmetic equivalents in International System (SI) units, enclosed in parentheses. The first value stated shall be regarded as the requirement. The converted equivalent value may be approximate. Appendix A lists the selected units and conversions to SI units for measures appearing in this standard. Conversion of U.S. customary units is in accordance with the American National Standards Institute (ANSI)/American Society for Testing Materials (ASTM) SI 10-02, “Standard for Use of the International System of Units (SI): The Modern Metric System.”

### 1.5 Applicable Documents

The following standards, test methods, and practices are referenced in this standard:

ASTM D 1929 “Standard Test Method for Ignition Properties of Plastics”

ASTM E 2058 *Standard Test Method for Measurement of Synthetic Polymer Material Flammability Using Fire Propagation Apparatus (FPA)*