



Approval Standard for Ignitable Liquid Drainage Floor Assemblies

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Foreword

The FM Approvals certification mark 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 Approval Standards is to present the criteria for FM Approval of various types of products and services, as guidance for FM Approvals personnel, manufacturers, users and authorities having jurisdiction.

Products submitted for certification by FM Approvals shall demonstrate that they meet the intent of the Approval Standard, and that quality control in manufacturing shall ensure a consistently uniform and reliable product. Approval Standards strive to be performance-oriented. They are intended to facilitate technological development.

For examining equipment, materials and services, Approval Standards:

- a) must be useful to the ends of property conservation by preventing, limiting or not causing damage under the conditions stated by the Approval listing; and
- b) must be readily identifiable.

Continuance of Approval and listing depends on compliance with the Approval Agreement, satisfactory performance in the field, on successful re-examinations of equipment, materials, and services as appropriate, and on periodic follow-up audits of the manufacturing facility.

FM Approvals LLC reserves the right in its sole judgment to change or revise its standards, criteria, methods, or procedures.

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1 INTRODUCTION

1.1 Purpose

- 1.1.1 This standard states Approval requirements for ignitable liquid drainage floor assemblies. Ignitable liquid drainage floor assemblies are one component of an ignitable liquid drainage system where the intended purpose of the overall system is to collect, direct and transfer any ignitable liquid that has been spilled into a specific area or areas where it can be pumped to a remote storage location. Such a system must be capable of functioning whether or not the liquid has ignited.
- 1.1.2 Approval criteria may include, but are not limited to, performance requirements, marking requirements, examination of manufacturing facility(ies), audit of quality assurance procedures, and a follow-up Surveillance Audits.

1.2 Scope

- 1.2.1 This standard applies to flooring assemblies that are part of an overall drainage system designed to prevent or minimize the consequences of an ignitable liquid pool fire or hazardous liquid spill in commercial and/or industrial applications.
- 1.2.2 The purpose of a the system is to minimize the spill area and reduce the overall fire size until the flow of liquid is stopped or fire fighting measured can be initiated. This is generally accomplished by removing and transporting the ignitable liquid to a remote location.
- 1.2.3 The purpose of this standard is to:
- determine the maximum spill flow rate that the floor assembly can handle;
 - ensure that the floor assembly is leak proof;
 - that the floor assembly will function whether or not the liquid has been ignited, and;
 - that the floor assembly can withstand the anticipated dead and live loads to which it will be subjected.
- 1.2.4 The test methods, criteria and products evaluated in this standard shall not be used to provide the following:
- The type, amount or class of ignitable liquids that can be used with or stored in the area that the drainage system will service;
 - Proper storage guidelines, storage arrangements or ignitable liquid container types, sizes and quantities of ignitable liquids being used;
 - The proper type or level of automatic sprinkler protection or other protection systems required for the amount of ignitable liquids present;
 - The design, quantity, type, size, location or reliability of the ancillary devices used to form the entire system for the complete detection and evacuation of the ignitable liquids to a remote holding area;
 - The size, shape, construction, location and protection systems, if any, required to provide a safe and secure remote holding area for the liquid that has been evacuated from the spill or fire area;
 - The installation, physical arrangement or recommended maintenance of the ancillary devices provided with the product being Approved.