

Approval Standard

Doorway Spill Barriers

Class Number 4985
September 2008

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Foreword

Approvals are 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 Approval of various types of products and services, as guidance for FM Approvals personnel, manufacturers, users and authorities having jurisdiction.

Products submitted for Approval shall demonstrate that they meet the intent of the Approval Standard, and that quality control in manufacturing and/or applications shall ensure a consistently uniform and reliable product or service. Approval Standards strive to be performance-oriented and 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 Master 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 or service/application.

FM Approvals LLC reserves the right in its sole judgement 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 doorway spill barriers. Doorway spill barriers are used in doorways of flammable liquid storage areas such as cut-off rooms, and are used in place of physical barriers such as ramps, curbs and other construction features.

1.1.2 Doorway spill barriers are used in place of or as a supplement to passive protection schemes. Their purpose is to prevent the spread of flammable liquids, fire caused by flammable liquids, and/or contaminated fire water from spreading beyond the room of origin. Failure to contain a flammable liquid fire to its room of origin increases the likelihood of an out-of-control flammable liquid fire.

1.1.3 The containment of flammable liquids to their room of origin is also necessary to prevent contamination to other parts of a facility, to storm drains or to sewer drains when a flammable liquid spill occurs.

1.2 Scope

1.2.1 This standard sets the performance requirements for doorway spill barriers under simulated indoor or environmentally controlled laboratory conditions. They shall be examined for their ability to effectively seal off a room and limit flammable liquids from passing through a doorway before, during and after being exposed to a fire that simulates the fire resulting from a flammable liquid spill.

1.2.2 This standard sets the performance requirements for doorway spill barriers in regards to their ability to deploy automatically, if automatic closing, and to reliably prevent the passage of flammable liquid through an opening at the onset of a flammable liquid spill.

1.2.3 This standard also sets the performance requirements as it relates to the load resistance and reliability of the unit to activate or deploy, if automatic closing, or ease of removing and re-installing the unit if it is a manual barrier.

1.2.4 This standard is intended to evaluate only those hazards investigated and is not intended to determine suitability for the end use of the product.

1.2.5 The results of tests conducted under the controlled conditions required by this standard shall not be used to describe or appraise performance under actual fire or natural hazard conditions as actual fire and natural hazard conditions vary widely.

1.2.6 Approval criteria shall include, but are not limited to, performance requirements, marking requirements, an examination of manufacturing facility(ies), an audit of quality assurance procedures, and a follow-up program.

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.