



Standard Specification for Spill Resistant Fueling Systems for Portable Fuel Containers for Consumer Use¹

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1. Scope

1.1 This specification establishes nationally recognized performance requirements for portable gasoline, kerosene, and diesel fueling systems intended for reuse by the consumer in filling, transport, dispensing, and storage. This specification does not cover single-trip prepackaged containers.

1.2 This specification defines performance requirements for systems that can effectively reduce fuel spillage and emissions when used in accordance with the manufacturer's (marked) warnings, operating instructions, and limitations of use. This specification does not provide assurance that systems meeting the requirements are suited to all fueling applications and conditions.

1.3 This specification is not a fire hazard standard. It concerns portable gasoline and kerosene containers for consumer use.

1.4 Containers used with these systems shall meet all applicable requirements of either Specification F852 or F976 and additional requirements as specified in this standard.

1.5 The following precautionary caveat applies only to the test method portion, Section 5, of this specification: *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Referenced Documents

2.1 ASTM Standards:²

D471 Test Method for Rubber Property—Effect of Liquids
D572 Test Method for Rubber—Deterioration by Heat and Oxygen

¹ This specification is under the jurisdiction of ASTM Committee F15 on Consumer Products and is the direct responsibility of Subcommittee F15.10 on Standards for Flammable Liquid Containers.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

D999 Test Methods for Vibration Testing of Shipping Containers

F852 Specification for Portable Gasoline Containers for Consumer Use

F976 Specification for Portable Kerosene and Diesel Containers for Consumer Use

3. Terminology

3.1 *Definitions*—See Specifications F852 and F976 for specific definitions.

3.2 Definitions of Terms Specific to This Standard:

3.2.1 *fueling system, n*—a pour spout as defined above and container intended to reduce fuel related emissions attributed to spillage, evaporation, and permeation.

3.2.2 *spill resistant spout, n*—a spout that when attached firmly to the container, will stop fuel flow when the receptacle, for example, gas tank, reaches an established level, and close and seal automatically when removed from the receptacle.

4. Requirements

4.1 Gasoline containers referred to in the specification must comply with the following sections in Specification F852–99: Sections 4.1 to 4.8, 4.8.1, 4.8.3 to 4.8.6, 4.9, 4.9.1, 4.9.3, 5, 6, 7, and applicable sections of Section 8. Kerosene or diesel containers referred to in this specification must comply with the following sections of Specification F976–02: Sections 4.1 to 4.8, 4.8.1, 4.8.3 to 4.8.6, 4.9, 4.9.1, 4.9.3, 5, 6, and applicable sections of Sections 7 and 8.

4.1.1 *Classifications*—Class A systems shall meet all requirements of this specification. Class B systems shall meet all applicable requirements of this specification and the following performance and administrative requirements in accordance with Title 13, California Code of Regulations, Chapter 9, Sections 2470–2478.

4.1.1.1 *Permeability*—The average weight loss shall not exceed 0.4 g/gal of capacity per 24 h period when tested in accordance with 5.15 of this specification.

4.1.1.2 *Flow Rate, Fill Level*—Not less than 1.89 L/min (0.5 gal/min) for systems with a nominal capacity of 9.46 L (2.5 gal) or less and fills to a level less than or equal to 25.4 mm (1 in.) below the top of the test fixture opening (see Fig. 1) when tested in accordance with 5.2 and 5.14 of this specification.