

Internal Use Only

INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS

STANDARD FOR

SELF-CONTAINED, ELECTRICALLY OPERATED RECIRCULATING, CHEMICALLY CONTROLLED TOILET

IAPMO TS 12-97^{e1}

1. PURPOSE

- 1.1** The purpose of this Standard is to establish an acceptable standard for minimum health and safety protection for the manufacture of self-contained, electrically operated recirculating, chemically controlled toilets. Its purpose is also to serve as a guide for producers, distributors, designers, engineers, installers, inspectors, and users; to promote understanding regarding materials, manufacture and installation; and to provide for identifying self-contained, electrically operated recirculating, chemically controlled toilets, that conform to this Standard.

The provisions of this Standard are not intended to prevent the use of any alternate material or method of construction, provided any such alternate meets the requirements of this Standard.

2. SCOPE

- 2.1** This Standard shall govern the manufacture of self-contained, electrically operated, recirculating, chemically controlled toilets, that are equipped with a motor-driven pump, that forces a flushing liquid containing a required chemical from the self-contained tank, through a mechanical self-cleaning type filter, into the peripheral rim of the bowl to flush deposited contaminants from the bowl back into the self-contained tank.
- 2.2** Toilets shall not be designed to permit connecting to a water supply system, unless provided with listed backflow prevention.

3. BASIC REQUIREMENTS

- 3.1** All materials, piping and fittings shall be approved non-corrosive and shall conform to the test requirements as outlined in this Standard.
- 3.2** Waste passages shall have smooth surfaces and be free from obstructions, recesses or chambers that would permit fouling.
- 3.3** Flushing shall be accomplished by a single operation, which shall be so arranged as to be

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operated without any special knowledge or effort.

- 3.4** All vitreous china components shall comply with the grading requirement specified in section 4 and outlet details specified in section 5.1 of ANSI A112.19.2M¹, (latest edition) Vitreous China Plumbing Fixtures.

4. DETAILED REQUIREMENTS

- 4.1** Waste outlets shall have a two and three-quarter (2-3/4) in. minimum inside diameter.
- 4.2** Component parts shall be accessible and removable for repair and replacement.
- 4.3** Actuation of the flushing control shall cause the flushing fluid to be drawn from the tank, through a self-cleaning type filter, that will pass a maximum particle size of .052 in. and pump into the peripheral rim of the bowl to completely wash deposits into the tank through an odor seal.
- 4.4** The electrical system shall be a maximum twenty-four (24) volts DC with properly sized over current protection.
- 4.5** A chemical shall be used that will control odor. The properties of the chemical shall be effective until the re-circulating unit is filled to capacity.
- 4.6** The base of the fixture shall be designed to mount on a standard closet flange.

5. INSPECTION AND TESTING METHODS

- 5.1** Inspection and testing of vitreous china toilets shall conform to the requirements as specified in ANSI A112.19.2M¹ (latest edition), Vitreous China Plumbing Fixtures.
- 5.2** Plastic components shall conform to the testing requirements as specified in ANSI Z124.4¹ (latest edition), Plastic Water Closet Bowls and Tanks.

6. FUNCTION TEST OF PRODUCTION RECIRCULATING UNIT

- 6.1 Selection of Test Unit.** A test unit shall be selected at random from production units.
- 6.2 Selection of Test Chemical.** All function and user tests will be conducted in conjunction with the specific chemicals and/or cleaners recommended by the manufacturer. The chemical and/or cleaner shall be selected on a random basis from consumer sized packages.
- 6.3** The test unit shall be installed in accordance with the manufacturer's recommendation. The test area shall have a single entry door. A maximum-minimum thermometer and