

Internal Use Only

INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS

MATERIAL AND PROPERTY STANDARD

FOR

SEWAGE HOLDING TANK CONTAINING SEWAGE EJECTOR PUMP FOR DIRECT MOUNTED WATER CLOSET

IAPMO PS 60-96

1. PURPOSE

- 1.1** The purpose of this standard is to establish a generally acceptable performance standard for sealed sewage holding tanks for direct mounted water closets and inlet connection for additional bathroom fixtures designed for both above and below the floor installations, containing a sewage ejector pump with automatic discharge to a gravity sewer or septic tank inlet piping. Its purpose is to serve as a guide for producers, distributors, architects, engineers, contractors, installers and inspectors; to promote understanding regarding materials, manufacture and installation; and to provide for identifying products that conform to this standard.
- 1.2** The provisions of this standard are not intended to prevent the use of any alternate materials or methods of construction, provided any such alternate meets the intent of this standard.

2. SCOPE

- 2.1** The sewage holding tank, for direct mount water closet, containing a sewage ejector pump with automatic level control is a plumbing device used with the installation of a water closet, bathtub, shower or vanity located below the level of gravity flow waste pipe. The device is designed for residential use in either below or above floor installation.
- 2.2** This standard covers performance requirements, design criteria and hydrostatic tests for sewage holding tanks for direct mounted water closets.

3. REFERENCED STANDARDS

- 3.1** All standards referenced herein shall be the current edition of that standard as published in Table 14-1 of the Uniform Plumbing Code. Copy of the current Table 14-1 can be obtained from IAPMO.

4. MATERIAL REQUIREMENTS

- 4.1 Tank And Cover.** Tank and cover shall be made from polyethylene material covered by ASTM D 1248, Specification for Polyethylene Plastics Molding and Extrusion Materials or ASTM D 3101, Specification for Propylene Plastic Injection and Extrusion Materials.
- 4.2 Pipe Seals.** Pipe seals molded from thermoplastic rubber such as Thermoplastic Elastomer-Chlorinated Ethylene Alloy (TCEA) shall be per ASTM D 5021, Specification for Thermoplastic Elastomer-Chlorinated Ethylene Alloy or equivalent.
- 4.3 Cord Seals.** Cord seals molded from thermoplastic rubber shall be of Type C and Class E per ASTM D 2000, Classification System for Rubber Products in Automotive Applications or equivalent.
- 4.4 Gaskets.** Gaskets made from closed cell cross linked polyethylene foam material shall be per ASTM D 4819, Specification for Flexible Cellular Materials Made for Polyolefin Plastics or equivalent.
- 4.5 Pump.** Pump shall comply with UL 778 and/or 1207. The pump shall have a two (2) inch discharge connection with the capability to pass two (2) inch spherical solids.

5. GENERAL REQUIREMENTS

- 5.1** The sewage holding tank shall be installed and supported on a solid level base per manufacturer's instructions.
- 5.2** A suitable means of fastening, supporting, and sealing the water closet to the holding tank shall be required. Any fitting or connection which offers obstruction to flow is prohibited.
- 5.3 Workmanship And Finish.** Sewage holding tanks with direct mount water closets shall be free of cracks, leaks, porosity, chips, flash or any other significant defects that may effect the performance, appearance or serviceability of the system.
- 5.4** Discharge and vent piping and fitting shall be manufactured from approved materials for drain, waste and vent piping and in accordance with ASTM Specifications D 2661, D 2665, D 2949, D 3311, F 409 or F 628.
- 5.5** The holding tank assembly shall be gas tight, leakproof and protected from backflow of sewage.
- 5.6** The holding tank and the sewage ejector pump shall be accessible for inspection, cleaning and repair.
- 5.7 Hydrostatic Pressure Testing Of The Holding Tank.** The holding tanks shall withstand a hydrostatic pressure equivalent to ten (10) feet of water column (4.33 psi) at 72°F (22.2°C).