

TEST REPORT

Ph: 909.472.4100 • Fax: 909.472.4243 • Web: www.iapmo.org
5001 East Philadelphia Street • Ontario, California 91761-2816 - USA



Report Number: 776-05001-A

Report Issued: February 2, 2006

IT&S Project No.: 12796

Client: Zero Flush Inc
3200 NW 60th St
Ocala, FL 34475

Contact: Mr. Judy Mannella

Source of Samples: The samples were received in good condition by IAPMO Testing & Service on December 21, 2005.

Date of Testing: December 21, 2005 through February 1, 2006.

Sample Description: Samples of model ZF-101 rectangular shape and ZF-201 oval shape waterless/ non-flushing, water-free vitreous china wall-hung urinal.

The urinal was made of vitreous china. The urinal uses a special trap cartridge. This cartridge used an odor barrier liquid (lighter than other liquids) which allows urine to sink through the layer and discharged to a sewer line. The outlet housing was made of plastic and connected to drain coupler.

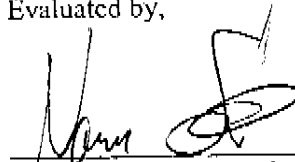
Primary Standards: IAPMO Guide Criteria IGC 161-2004, entitled, "IAPMO Guide Criteria for Waterless Urinal".

Scope of Testing: The purpose of the testing was to determine if the waterless urinal samples tested complied with the applicable requirements of IAPMO Guide Criteria IGC 161-2004.

Conclusion: The sample tested of the Models ZF-201 and ZF-101 wall-hung urinal from Zero Flush complied with the applicable sections of IAPMO Guide Criteria IGC 161-2004.

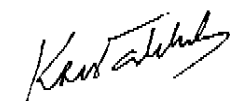
By our signatures below we certify that all the testing and sample preparation for this report was performed under continuous, direct supervision of IAPMO Testing and Services, LLC.

Evaluated by,


Norm Smith, Test Technician

NS:ka

Reviewed by,


Kris Adilukito, PE, Manager Fixture Testing

Sections Tested/Evaluated:

IAPMO Guide Criteria IGC 161-2004

Section 5.1 Materials
Section 6 Marking

ASME A112.19.2-2003

Section 2.1 Absorption
Section 2.2 Crazing
Section 2.3 Thickness
Section 2.4 Warpage
Section 2.5 Glazed Surfaces
Section 2.6 Finish
Section 2.8 Load Test for Wall-mounted Fixtures
Section 3.3 Trap Seal Depth
Section 3.9.1 Urinal Trapway
Section 3.9.2 Urinal Sizes

ANSI Z124.9 Section 7.8 Testing of Waterless Urinals.

Test Results: All tests and evaluations were conducted per the written procedures in the specified standard.

IAPMO Guide Criteria IGC 161-2004

Section 5.1 Materials

5.1.2 Vitreous China-COMPLIED

Vitreous china urinal and components met the material requirements of ASME A112.19.2 and the performance requirements of ANSI Z124.9 section 7.8 entitled "Testing of Waterless Urinals".

Please refer to the ASME A112.19.2 and ANSI Z124.9 section 7.8 entitled "Testing of Waterless Urinals".

5.1.3 Stainless Steel -- NOT APPLICABLE

The urinal was made from Vitreous china

5.1.4 Non-Vitreous Ceramic -- NOT APPLICABLE

The urinal was made from Vitreous china

Section 6. MARKINGS- COMPLIED

6.1 The fixture was permanently and legibly marked according to the drawings with the following information:

- (a) Manufacturer's name
- (b) Model number or designation

6.2 The carton and instructions was marked according to the drawings with the following information:

- (a) Manufacturer's name
- (b) Model number or designation

ASME A112.19.2-2003

Section 2.1 Absorption – COMPLIED

When tested per paragraph 7.1, the absorption was 0.35 %. The maximum allowable is 0.5%

Section 2.2 Crazing – COMPLIED

When tested per paragraph 7.2, there was no crazing

Section 2.3 Thickness – COMPLIED

The thickness of vitreous china was more than 1/4" at any point.

Findings: Minimum thickness found, exclusive of the glaze, was 0.25 inch on top of the back wall for model ZF 201. Model ZF 101 thickness was 0.27 inch on top side of the back wall.

Section 2.4 Warpage – COMPLIED

The urinal met the warpage requirements listed in Table 1A of the standard when evaluated in accordance with paragraph 7.3.

Findings:

Location	Measured Warpage (In)	Requirements (In)
Wall model ZF-101	0.083	1/8" max.
Wall model ZF-201	0.052	1/8" max.

Section 2.5 Glazed Surfaces - COMPLIED

The glaze was thoroughly fused to the fixture body. All exposed surfaces required to be glazed were glazed properly.

Section 2.6 Finish – COMPLIED

The unit tested was "first quality" when evaluated for surface defects per paragraph 7.4 and table 1 of the standard.

Section 2.8 Load Test for Wall Mounted Fixtures

Section 2.8.3 Load Test for Urinals - COMPLIED

The urinals tested withstood the 50 lbs load when evaluated per paragraph 7.7.1 of the standard using the carrier.

Section 3.3 Trap Seal Depth - COMPLIED

The trap seal depth measured at 2 inches. Required is 2 inch minimum.

Section 3.9 Urinal

Section 3.9.1 Urinal Trapway - NOT APPLICABLE

The unit tested is waterless urinal with a special trap.

Section 3.9.2 Urinal Size - COMPLIED

The dimensions of the urinals were as specified in Table 4 of the standard.

ANSI Z124.9 section 7.8 entitled "Testing of Waterless Urinals".

Section 7.8.1 Resistance to Stoppage - COMPLIED

With the fixture installed on a test stand in accordance with the manufacturer's installation instructions, two unfiltered cigarette butts were dropped into the urinal and tap water added to the unit at a flow rate of 0.125 gpm. This procedure was repeated, alternating between the cigarette butts and water until a total of twenty cigarette butts and ten pints of water had been added. The cigarette butts were removed and the test repeated five times alternating between unfiltered and unfiltered crumpled cigarettes.

Findings: There was no evidence of stoppage or clogging during the test.

7.8.2 Tightness Test of Removable Trap - NOT APPLICABLE

The urinal did not use a removeable trap. It is a bell trap. The trap was filled with water and odor barrier liquid.

7.8.3 Odor Removal Test - COMPLIED

The urinal tested must meet the odor evaluation test when tested per section 7.8.3.1 of the standard.

Findings:

The urinal was evaluated over five (5) weeks period by 5 laboratory personnel for 261 times.

Reading 1, acceptable 258 times

Reading 2, barely acceptable 3 times

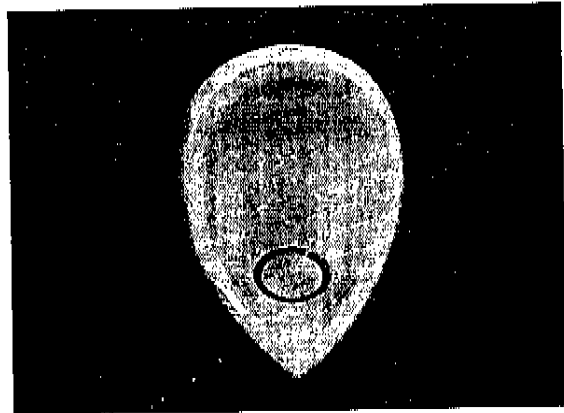
Reading 3, not acceptable 0 times

Requirement: 95 % of all readings shall be either 1 or 2.

Photograph of Sample Tested:



ZF-201



ZF-101

