

TEST REPORT

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Report Number: 1724-12001

Report Issued: July 27, 2012

Project No.: 20581

Client: Stetson Development Inc.
22554 San Joaquin Dr. W
Canyon Lake, CA 92587

Contact: Mr. Michael Stetson

Source of Samples: The samples were sent by Stetson Development Inc. and received by IAPMO R&T Lab in good condition on July 6, 2012.

Date of Testing: July 6, 2012 through July 27, 2012

Sample Description: ABS plastic shower tile drain

Model No.: TD101

Product Name: Tiledrain

Scope of Testing: The purpose of the testing was to determine if the samples tested of the ABS plastic shower tile drain met the applicable requirements of ASME A112.18.2-2011/CSA B125.2-11, entitled, "Plumbing Waste Fittings".

Conclusion: The samples tested of the ABS plastic shower tile drain, model TD101, from Stetson Development Inc. **COMPLIED** with the applicable requirements of ASME A112.18.2-2011/CSA B125.2-11.

By our signatures below we certify that all the testing and sample preparation for this report was performed under continuous, direct supervision of IAPMO R&T Lab, unless otherwise stated.

Tested by,

Reviewed by,

A handwritten signature in black ink, appearing to read "Ruben Lemus".

Ruben Lemus, Test Engineer

A handwritten signature in black ink, appearing to read "Andy Ho".

Andy Ho, Manager, Fitting Testing

RL: ah

Primary Standard: ASME A112.18.2-2011/CSA B125.2-11, clauses tested / evaluated:

- | | | | |
|-----|-------------------|-----|------------------------|
| 4.1 | Materials | 4.2 | Installation |
| 4.5 | Replacement Parts | 4.6 | Dimensions |
| 5.1 | General | 5.2 | Corrosion |
| 5.3 | Thermal Cycling | 5.5 | Shower Drain Strainers |
| 5.8 | Minimum Flow Rate | 5.9 | Strength Test |
| 6.0 | Markings | | |

Clauses of ASME A112.18.2-2011/CSA B125.2-11 not specifically listed above were considered not applicable to subject product.

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

ASME A112.18.2-2011/CSA B125.2-11

4.1 Materials – COMPLIED

4.1.2 The shower drain was made from materials that complied with this Standard.

4.1.3 The shower drain was made of ABS material (Polylac® PA-747), which exceeded the cell classification 42222 requirements in ASTM D 3965. The cell class was found to be 53233.

Finding:

Physical Property	Test Method	Test Result	Cell Number
Izod Impact (23 °C), (J/m)	ASTM D 256	430	5
Izod Impact (-30 °C), (J/m)	ASTM D 256	139.6	2
Deflection Temperature under 1.82 MPa Load, (°C)	ASTM D 648	84.6	2
Tensile Yield Strength, (psi)	ASTM D 638	5,878	3
Modulus of Elasticity in Tension, (psi)	ASTM D 638	304,888	3

4.2 Installation – COMPLIED

4.2.1 The shower drain was provided with means to connect to a type of trap or waste system in common use.

Finding: The shower drain was provided with a 2” NPSM outlet to connect to a sub drain.

4.2.2 Provision was made to enable the shower drain to be connected and mounted without marring the finish or otherwise damaging the fitting or the surface on which it is to be mounted.

4.2.3 Provision was made for a method of establishing a seal between the shower drain and the fixture to which it is fastened.

4.5 Replacement Parts – COMPLIED

4.5.1 Repair and maintenance of the shower drain could be accomplished with standard tools.

4.5.2 Joints that have to be taken apart to replace worn parts after the fitting is installed were designed so that disassembly and replacement were possible without damaging or marring the fitting or any significant surface on which the fitting is installed.

4.6 Dimensions

4.6.1 Outlet Size – COMPLIED

The shower drain was provided with a 2” nominal OD outlet.

4.6.3 Wall Thickness – COMPLIED

4.6.3.2 The wall thickness of the drain outlet was at least 1.58 mm (0.062 in). The measured wall thickness was 0.088”.

5.1 General – FOLLOWED

5.1.1 Before testing, specimens were conditioned at ambient laboratory conditions for at least 12 h.

5.1.2 Each specimen was installed in accordance with the manufacturer’s instructions.

5.1.3 Two samples were selected at a random from a lot of 5 production fittings and subjected to the test sequence specified in Clauses 5.1.3.2 and 5.1.3.3.

5.2 Corrosion – COMPLIED

5.2.1.2 After the corrosion test, the specimen met the requirement specified in Clause 5.11.2.1.

5.2.1.3 After the test, the specimen was capable of being dissembled with standard tools to enable access to all serviceable parts without damage the specimen and reassembled with standard tools without damage to the specimen.

5.3 Thermal Cycling – COMPLIED

The shower drain was installed in accordance with the manufacturer’s instructions and was subjected to a water flow of 2.0 ± 0.2 gpm at 140 ± 3 °F for 1.5 minute, followed immediately by a water flow at 70 ± 3 °F for 1.5 minute for a total of 7 cycles.

Finding: The shower drain did not show any signs of cracking, leaking, or deformation after the test.

5.4 Coatings – NOT APPLICABLE

The shower drain did not have coating.

5.5 Shower Drain Strainers – COMPLIED

The shower drain was tested in accordance to Clause 5.5.2 with a uniformly distributed load of 300 lbf applied to a 2” diameter plate placed in the centre of the unit for 2 minutes.

Finding: The shower drain strainer (tile drain tray) did not crack and the deflection was not more than 3% of the largest transverse dimension with the load in place. The measured deflection was 1.45%.

5.8 Minimum Flow Rate – COMPLIED

The shower drain permitted a flow of water of more than 7.0 gpm when a sustained water head of 6.0” was applied above the inlet and the outlet was open to the atmosphere.

Finding: The actual flow rate was more than 15.0 gpm.

5.9 Strength Test – COMPLIED

5.9.1 NOT APPLICABLE – No field-assembled threaded connections of union joints, slip joints or gasketed joints.

5.9.2 The drainage envelope parts of the shower drain withstood a hydrostatic pressure test of 5.0 psi for 1 minute without any evidence of leakage, cracking or permanent deformation when tested in accordance with Clause 5.9.2.2.

6.0 Markings

6.1 General – COMPLIED

The shower drain was permanently marked with the manufacturer’s name “Stetson Development Inc.” underneath the drain tray and the marking could be visible after installation.

6.2 Packaging – NOT EVALUATED

The packaging shall be marked with the manufacturer’s name or trademark and model number.

Finding: No product packaging was received for evaluation.

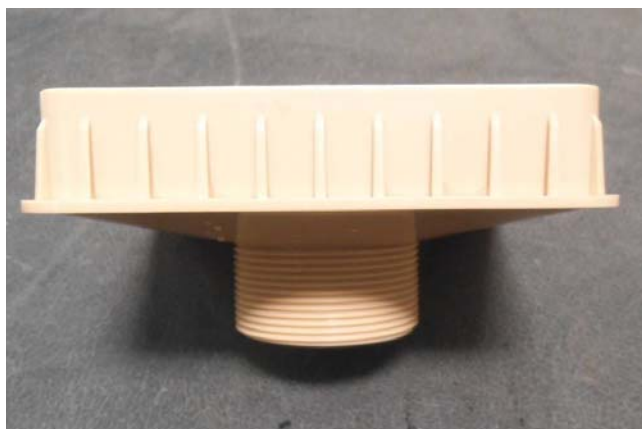
Photographs of Sample Tested:



Model TD101 (Top View)



Markings underneath Drain Tray



Model TD101 (Side View)



Model TD101 (Drain Tray + Body)