



WMTS-522:2018

Barrier type floor drain trap seal protection devices

WaterMark Technical Specification

Publication History:-

First published as WMTS-522—2018

2018

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PREFACE

This WaterMark Technical Specification was originally prepared by industry and reviewed by the ABCB WaterMark Technical Advisory Committee (WMTAC).

The objective of this Technical Specification is to enable product certification in accordance with the requirements of the Plumbing Code of Australia (PCA).

The word 'VOID' set against a clause indicates that the clause is not used in this Technical Specification. The inclusion of this word allows a common use clause numbering system for the WaterMark Technical Specifications.

The term 'normative' has been used in this Technical Specification to define the application of the appendices to which they apply. A 'normative' appendix is an integral part of a Technical Specification.

The test protocol and information in this Technical Specification was arranged to meet the authorization requirements given in the PCA.

The WaterMark Schedule of Products and WaterMark Schedule of Excluded Products are dynamic lists and change on a regular basis. These lists are located on the ABCB website (www.abcb.gov.au). These lists are version controlled with appropriate historic references.

ACKNOWLEDGEMENTS

WaterMark Technical Specification WMTS-522:2017 was prepared by industry and reviewed by the ABCB WaterMark Technical Advisory Committee. It was approved by the ABCB on 09 May 2018.



TABLE OF CONTENTS

Important Notice and Disclaimer..... 2

Preface 3

Acknowledgements..... 4

1 Scope 6

2 Application..... 6

3 Referenced documents..... 6

4 Definitions 7

5 Materials 7

6 Marking 7

7 Packaging 7

8 Design..... 7

9 Performance requirements and test methods..... 8

10 Test sequence and test sample plan 8

11 Product documentation 8

Appendix A Means for demonstrating compliance with this technical specification..... 9

1 SCOPE

This Technical Specification specifies the requirements for a Barrier type floor drain trap seal protection device for floor drain pipes of nominal sizes DN40, DN50, DN80, and DN100.

The Barrier type floor drain trap seal protection device is to be used in addition to the existing trap seal for the purpose of mitigating trap seal loss due to evaporation and to protect against the entry of vermin into the habitable space.

2 APPLICATION

This device will be used at the grate inlet of drain pipes above and in addition to the water trap seal for the further protection against trap seal malfunctions.

This device cannot be used as an alternative to a trap seal in floor waste applications.

Appendix A sets out the means by which compliance with this WaterMark Technical Specification shall be demonstrated by a manufacturer for the purpose of product certification.

3 REFERENCED DOCUMENTS

AS

2887 Plastic waste fittings

AS/NZS

1260 PVC-U pipes and fittings for drain, waste and vent application

3500 Plumbing and drainage

3500.0 Part 0: Glossary of terms

3500.2 Part 2: Sanitary plumbing and drainage

ASSE

1072 Performance requirements for barrier type floor drain trap seal protection devices

NCC

PCA Plumbing Code of Australia

4 DEFINITIONS

For the purpose of this WaterMark Technical Specification, the definitions given in AS/NZS 3500.0 and ASSE 1072 apply.

5 MATERIALS

Materials employed in the construction of this barrier type floor drain trap seal protection device shall be such that they can withstand contact with wastewater up to 60 degrees C and comply with the performance requirements of this Technical Specification. Materials used in the construction of the device shall be both corrosion resistant and UV resistant.

Where plastics material is used in the construction of the body of the device, the majority material type used in the body of the device shall be marked on the packaging of the product.

Where uPVC is used in the construction of the product it shall satisfy the BEP requirements of AS/NZS 1260.

6 MARKING

Markings to be placed on product or packaging shall, as a minimum, include the following:

- a) Manufacturer's name, brand or trademark.
- b) WaterMark.
- c) Licence number.
- d) Number of the WaterMark Technical Specification, i.e., WMTS-522.
- e) The majority material used in the construction of the product.

7 PACKAGING

Product shall be packaged to prevent any contamination.

8 DESIGN

Barrier type floor drain trap seal protection devices shall include end connections that enable integration within a plumbing or drainage system, complying with AS 2887 or AS/NZS 1260.

9 PERFORMANCE REQUIREMENTS AND TEST METHODS

9.1 Test samples

Test samples shall be tested in accordance with Section 3.0 of ASSE 1072:2007.

10 TEST SEQUENCE AND TEST SAMPLE PLAN

10.1 Test samples

Test samples shall be submitted for testing in accordance with Section 2.1 of ASSE 1072:2007.

10.2 Test sample plan

Test samples shall be tested in accordance with Section 2.2 of ASSE 1072:2007. Rejection of test results shall be determined in accordance with Section 2.4 of ASSE 1072:2007.

11 PRODUCT DOCUMENTATION

Installation Instructions including the following requirements are to be supplied with the product, or made available to the end user:

- a) This barrier type floor drain trap seal protection device is not for use as a trap seal.
- b) The product should not be removed from the packaging until it is to be installed.
- c) The product shall not be installed into an overflow relief gully (ORG), or a puddle flange.
- d) Operating/maintenance/troubleshooting instructions including the need for the device to be installed clear of the following potential obstructions:
 - (i) an existing water level within a trap,
 - (ii) any inlets to a riser, and
 - (iii) any above ground soil, waste and drainage pipe collars.
- e) Product warranty details including contact details for warranty claims.
- f) A reference to the installation being undertaken by a licenced practitioner.

APPENDIX A MEANS FOR DEMONSTRATING COMPLIANCE WITH THIS TECHNICAL SPECIFICATION

(Normative)

A.1 SCOPE

This appendix sets out the means by which compliance with this Watermark Technical Specification shall be demonstrated by a manufacturer under the WaterMark Certification Scheme.

A.2 RELEVANCE

The long-term performance of plumbing systems is critical to the durability of building infrastructure, protection of public health and safety, and protection of the environment.

A.3 PRODUCT CERTIFICATION

The purpose of product certification is to provide independent assurance of the claim by the manufacturer that products comply with this WaterMark Technical Specification.

The certification scheme serves to indicate that the products consistently conform to the requirements of this WaterMark Technical Specification.

The sampling and testing plan, as detailed in Paragraph A5 and Table A1, shall be used by the WaterMark Conformity Assessment Body. Where a batch release testing program is required, it shall be carried out by the manufacturer as detailed in Paragraph A5 and Table A2.

A.4 DEFINITIONS

A.4.1 Batch release test

A test performed by the manufacturer on a batch of components, which has to be satisfactorily completed before the batch can be released.

A.4.2 Production batch

Clearly identifiable collection of units, manufactured consecutively or continuously under the same conditions, using material or compound to the same specification.

A.4.3 Sample

One or more units of product drawn from a batch, selected at random without regard to quality.

NOTE: The number of units of product in the sample is the sample size.

A.4.4 Sampling plan

A specific plan that indicates the number of units of components or assemblies to be inspected.

A.4.5 Type test batch

Schedule of units of the same type, identical dimensional characteristics, all the same nominal diameter and wall thickness, from the same compound. The batch is defined by the manufacturer.

A.4.6 Type testing (TT)

Testing performed to demonstrate that the material, component, joint or assembly is capable of conforming to the requirements given in the Watermark Technical Specification.

A.5 TESTING

A.5.1 Type testing

Table A1 sets out the requirements for type testing and frequency of re-verification.

A.5.2 Batch release testing

Table A2 sets out the minimum sampling and testing frequency plan for a manufacturer to demonstrate compliance of product(s) to this Watermark Technical Specification on an ongoing basis. However, where the manufacturer can demonstrate adequate process control to the WaterMark Conformity Assessment Body, the frequency of the sampling and testing nominated by the manufacturer's quality plan and/or documented procedures shall take precedence for the purposes of WaterMark product certification.

A.5.3 Retesting

In the event of a batch release test failure, the products within the batch may be retested at a frequency agreed to with the WaterMark Conformity Assessment Body and only those batches found to comply may be claimed and/or marked as complying with this WaterMark Technical Specification.

A.5.4 Minimum annual inspection requirements

Table A3 sets out the minimum annual inspection requirements to be undertaken.

A.5.5 Re-evaluation testing

Table A4 sets out the requirements for re-evaluation testing.

**TABLE A1
TYPE TESTS**

| Characteristic | Clause | Requirement | Test method | Frequency |
|-----------------------|---------------|--|--|--|
| Materials | 5 | Materials | Review materials parts lists and compliance certificates | At any change in materials specification |
| Design | 8 | End connections | Design review | At any change in the design |
| Performance | 9 | Test requirements | Test reports conforming with ASSE 1072:2007 | At any change in materials, formulation or design or manufacturing process |
| Product documentation | 11 | Product data/Installation and maintenance instructions | Product documentation | At any change to installation requirements |

**TABLE A2
BATCH RELEASE TESTS**

| Characteristic | Clause | Requirement | Test method | Frequency |
|-----------------------|---------------|--|------------------------------|------------------|
| Marking | 6 | Marking | Visual inspection | Each batch |
| Design | 8 | End connection | Dimensional assessment | Each batch |
| Performance | 9 | Test requirements | Clause 3.4 of ASSE 1072:2007 | Once per batch |
| Product documentation | 11 | Product data/Installation and maintenance instructions | Visual inspection | Each batch |

TABLE A3
MINIMUM ANNUAL INSPECTION REQUIREMENTS BY CAB

| Characteristic | Clause | Requirement | Verification method | Frequency |
|-----------------------|--------|---|---|---|
| Materials | 5 | Materials | Review materials specifications and compliance certificates | Sample from product family, covering all families within 5 year certification cycle |
| Marking | 6 | Product marking, use of the WaterMark logo and license number | Visual inspection of marked product, relevant packaging and documentation | |
| Design | 8.1 | End connection | Visual, dimensional evaluation | |
| Performance | 9.1 | Test requirements | Desktop design review | |
| Product documentation | 11 | Product data/Installation and maintenance instructions | Visual examination | |

TABLE A4
RE-EVALUATION TESTING

| Characteristic | Clause | Requirement | Test method |
|-----------------------|--------|--|---|
| Materials | 5 | Materials | Review materials specifications and compliance certificates |
| Design | 8.1 | End connection | Design review |
| Performance | 9.1 | Test requirements | Clause 3.1 and 3.4 of ASSE 1072:2007 |
| Product documentation | 11 | Product data/Installation and maintenance instructions | Product documentation |