



WMTS-014:2016

Jointing materials

WaterMark Technical Specification

2016



ABCBC



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Jointing materials

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IMPORTANT NOTICE AND DISCLAIMER

On 25 February 2013 management and administration of the WaterMark Certification Scheme transferred to the Australian Building Codes Board (ABCB). From this date all new technical specifications will be named WaterMark Technical Specifications (WMTS). Within two years all existing ATS will be renamed WMTS. During this initial period both terms may be used and accepted. All new and recertified Certificates of Conformity will reference WMTS. Certificates of Conformity that currently reference ATS will be re-issued referencing the equivalent WMTS during this initial period. The WaterMark Schedule of Specifications lists all current WMTS and, where appropriate, the former ATS name.

This Technical Specification supersedes Standards Australia ATS 5200.014 – 2004.

The rebranding of this Technical Specification has included additional information about the transition as well as changes to specific details including replacing references to Standards Australia and the National Plumbing Regulators Forum (NPRF) with the ABCB, changing the term Australian Technical Specification (ATS) to WaterMark Technical Specification (WMTS), replacing references to technical committees WS-014 and WS-031 with the WaterMark Technical Advisory Committee (WMTAC).

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PREFACE

WaterMark Technical Specification WMTS-014:2016 Technical Specification for plumbing and drainage products, Jointing materials was originally prepared by the Joint Standards Australia/Standards New Zealand Committee WS-031, Technical Procedures for Plumbing and Drainage Products Certification as ATS 5200.014-2004.

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 plumbing and drainage 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 by committee members to meet the authorization requirements given in the PCA.

The WaterMark Schedule of Specifications and List of Exempt Products are dynamic lists and change on a regular basis. Based on this function, these lists have been removed from the WaterMark Certification Scheme document known as Technical Specification for Plumbing and Drainage Products and are now located on the ABCB website (www.abcb.gov.au). These lists will be version controlled with appropriate historic references.

ACKNOWLEDGEMENTS

Australian Technical Specification ATS 5200.014-2004, on which this technical specification is based, was prepared by Standards Australia Committee WS-031, Technical Procedures for Plumbing and Drainage Products Authorisation. It was approved on behalf of the Council of Standards Australia on 23 April 2004.

The following organisations were represented on Committee WS-031 in the preparation of Australian Technical Specification ATS 5200.014-2004:

- AUSTAP
- Australian Industry Group
- Certification Bodies (Australia)
- Copper Development Centre—Australia
- Fire Contractors Federation
- Master Plumbers, Gasfitters and Drainlayers New Zealand
- New Zealand Water & Waste Association
- Plastics Industry Pipe Association of Australia
- Plumbing Industry Commission
- South Australian Water Corporation
- Water Services Association of Australia

TABLE OF CONTENTS

1	Scope	6
2	Application.....	6
3	Referenced documents.....	6
4	Definitions.....	7
5	Materials	7
6	Marking	7
7	Void	7
8	Void	7
9	Performance requirements and test methods.....	8
10	Void	8
11	Product documentation	8
Appendix A	Means for demonstrating compliance with this technical specification.....	9

1 SCOPE

This Technical Specification sets out minimum requirements for jointing materials utilized in the installation of water supply plumbing systems.

NOTE: This specification does not specifically address the product performance attributes.

Materials typically covered by this Technical Specification are the following:

- a) Lubricants.
- b) Joint sealants.
- c) Thread sealants.
- d) Solders.
- e) Brazing alloys.

2 APPLICATION

The jointing materials covered by this Technical Specification are those intended to be used directly in contact with water for the jointing, lubrication or sealing of plumbing products or components.

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

3 REFERENCED DOCUMENTS

The following documents are referred to in this Specification:

AS

1834 Material for soldering

1834.1 Part 1: Solder alloys

AS/NZS

1167 Welding and brazing—Filler metals

3500 Plumbing and Drainage

3500.0 Part 0: Glossary of terms

3500.1 Part 1: Water services

4020 Testing of products for use in contact with drinking water

4 DEFINITIONS

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

5 MATERIALS

5.1 Solder

Solders shall comply with the chemical composition requirements of AS 1834.1 (see Clause 3) and be a material designated by AS/NZS 3500.1.

5.2 Brazing alloys

Brazing alloys shall comply with the chemical composition requirements of AS 1167 (see Clause 3) and be an alloy designated by AS/NZS 3500.1.

6 MARKING

The primary packaging of each material shall be permanently and legibly marked with the following:

- a) Manufacturer's name, brand or trademark.
- b) Use by date, if applicable.
- c) Alloy/material designation and common name, where applicable.
- d) WaterMark.
- e) Licence number.
- f) The number of this Specification, i.e., WMTS-014.

7 **VOID**

8 **VOID**

9 PERFORMANCE REQUIREMENTS AND TEST METHODS

9.1 Products in contact with drinking water

Products in contact with drinking water shall comply with AS/NZS 4020. Products shall be tested as follows:

- a) Solder/brazing materials—in their final form with compatible jointing material utilizing a scaling factor of 0.1 and at a maximum holding temperature of 80°C.
- b) Lubricants/sealants—utilizing the immersion procedure of AS/NZS 4020.

10 VOID

11 PRODUCT DOCUMENTATION

11.1 Product data

Product data that identifies critical product characteristics, such as compatible materials, and application limitations, e.g., temperature and moisture, shall be available.

11.2 Installation instructions

Installation instructions shall be available, which shall include full details of the method of application/use of the material, including pre- and post-application procedures.

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 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 Technical Specification.

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

The frequency of the sampling and testing plan, as detailed in Paragraph A5 shall be used by the WaterMark Conformity Assessment Body.

A.4 DEFINITIONS

A.4.1 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.4.2 Type testing (TT)

Testing performed to demonstrate that the material, component, joint or assembly is capable of conforming to the requirements given in the Technical 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.5 TESTING

A.5.1 Type testing

Type testing shall be in accordance with Table A1.

A.5.2 Batch release testing

Certification of this product does not require formal batch release tests.

NOTE: The manufacturer would be expected to carry out the normal quality assurance on the product.

**TABLE A1
TYPE TESTS**

Characteristic	Clause	Requirement	Test method
Materials	5	Materials	Review materials parts lists and compliance certificates
Marking	6	Marking	Visual examination
Performance	9.1	Products in contact with drinking water	AS/NZS 4020
Product documentation	11	Product data/installation instructions	Documentation review

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