

Australian Standard®

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**Authorization requirements for  
plumbing products—Flexible tubes**

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This Australian Standard was prepared by Committee WS/1, Water Fittings. It was approved on behalf of the Council of Standards Australia on 14 August 1992 and published on 12 October 1992.

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The following interests are represented on Committee WS/1:

AUSTAP

Australian Valve Manufacturers Association

Brisbane City Council

Confederation of Australian Industry

Department of Local Government, Qld

Department of Public Works, N.S.W.

Engineering and Water Supply Department, S.A.

Federated Master Plumbers of Australia

Hobart City Council

Hunter Water Board, N.S.W.

Institute of Plumbing, Australia

Master Plumbers Association of South Australia

Melbourne Water

Metal Trades Industry Association of Australia

Water Authority of Western Australia

Water Board, Sydney—Illawarra—Blue Mountains

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## PREFACE

This Standard was prepared by the Standards Australia Committee on Water Fittings at the request of the Committee for Plumbing Products Authorization (CPPA).

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## STANDARDS AUSTRALIA

### Australian Standard

#### Authorization requirements for plumbing products—Flexible tubes

**1 SCOPE** This Standard specifies requirements for hot and cold water supply metallic and non-metallic flexible tubes for above ground application only, in the range of nominal sizes from DN 2 to DN 50 inclusive with a continuous working pressure not exceeding 1.4 MPa and where the normal working temperature does not exceed 95°C. Flexible tubes for cold water application capable of withstanding temperatures up to 60°C are included. The construction of flexible tubes is not included.

**2 REFERENCED DOCUMENTS** The following documents are referred to in this Standard:

AS	
1349	Bourdon tube pressure and vacuum gauges
1769	Welded stainless steel tube for plumbing applications
2345	Dezincification resistance of copper alloys
2831	Thermometers—Solid stem—Long and short—For precision use
2837	Wrought alloy steels—Stainless steel bars and semi-finished products
3500	National Plumbing and Drainage Code
3500.0	Part 0: Glossary of terms
3688	Water supply—Copper and copper alloy body compression and capillary fittings and threaded end connectors
3707	Method for testing pressure cycling resistance of pipes and fittings
3855(Int)	Suitability of plumbing products for contact with potable water

**3 DEFINITIONS** For the purpose of this Standard the definitions given in AS 3500.0 and those below apply.

**3.1 Flexible tube**—a tube intended for use between a pipework system and a fixture, fitting, valve, tap or similar, that is capable of moving or bending in any direction without damage.

**3.2 Length of tube**—the actual length of a flexible tube which shall not be less than the stated nominal length.

**4 SIZE DESIGNATION** The size by which a flexible tube is designated shall be related to the size of the bore. The designated size shall be in the range from DN 2 to DN 50.

### 5 MATERIALS

**5.1 General** All materials in contact with water shall comply with Clause 6. Acetal plastic shall be co-polymer. Metallic materials shall be corrosion resistant and made of compatible material and resistant to variations in water quality.

NOTE: Manufacturers should consider the likelihood of acetal components being directly connected to copper-alloys and the potential for breakdown which may exist. Manufacturers should provide installation instructions to warn against such connections.

**5.2 Dezincification-resistant copper alloy** Dezincification-resistant copper alloys shall comply with AS 2345.

**5.3 Stainless steel** Stainless steel shall comply with the following:

- (a) Wrought components: AS 2837, Series 300, containing not less than 8 percent nickel.
- (b) Tubular components: AS 1769.

**5.4 Corrosion-resistant materials** For the purpose of this Standard, the following metallic materials shall be deemed to be corrosion-resistant:

- (a) Copper alloy as specified in Clause 5.2.
- (b) Stainless steel as specified in Clause 5.3.

**5.5 Elastomers and plastics** Elastomers and plastics components of fittings and flexible tubing shall comply with this Standard.

**6 CONTAMINATION OF WATER** Products and materials in contact with potable water shall comply with AS 3855(Int).