



PRODUCT TESTING TO AS/NZS 4020



Ensuring quality and compliance to the Standard AS/NZS 4020, the Australian Water Quality Centre (AWQC) is Australia's leading product testing laboratory, with over 25 years of experience providing professional advice to the water industry.

AS/NZS 4020 - testing of products for use in contact with drinking water

This Standard is designed to test any product that comes in contact with drinking water. The Australian Water Quality Centre was the first laboratory in Australia to offer testing to AS/NZS 4020. The first products were submitted in 1992 and since that time, the laboratory has tested thousands of products. The laboratory routinely provides services for a wide variety of products submitted from across Australia and the world. Test reports issued by the laboratory are recognised by Standards Australia and the major Water Authorities. NATA accreditation has been obtained for all the tests prescribed in the Standard.

The Standard

The Standard requires that products do not affect the taste or appearance of water; do not support the growth of microorganisms; and do not release cytotoxic or hazardous compounds or metals. The tests required are specific to the type of product submitted.

— Specialist water services

Ensuring public health



Componentes of the Standard

Taste Of Water Extract: A trained panel tastes water extracts to determine whether products release any compounds that impart discernable taste.

Appearance Of Water Extract: Water that has been in contact with a product is examined for any increase in colour or turbidity.

Growth Of Aquatic Micro-organisms: A test that takes eight weeks, products are examined for the ability to support bacterial growth by monitoring dissolved oxygen levels.

Mutagenic Activity Of Water Extract: An AMES test is used to determine whether products release mutagenic compounds. Water extracts are mixed with specific bacteria. Any measured change in the genetic nature of the bacteria is regarded as evidence of mutagenic activity.

Cytotoxic Activity Of Water Extract: Water extracts are tested for cytotoxicity using mammalian cell lines maintained in laboratory culture. Any adverse effect on the health of the cells is recorded as a cytotoxic effect.

Extraction Of Metals: Water extracts are examined for the release of Aluminium, Arsenic, Antimony, Barium, Boron, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Mercury, Molybdenum, Nickel, Selenium and Silver. The limits are in line with Australian Drinking Water Guidelines (ADWG). The extraction procedure is either by end-of-line test or in-line test.

High Temperature Tests: Products in contact with hot water are tested at higher temperatures. This applies to hot water systems and boiling water dispensers (including their outlet taps, fittings and tubes).

Organic Compounds: Water extracts are analysed, using USEPA methods, for organic compounds. The limits are in line with Australian Drinking Water Guidelines (ADWG).

Consultancy Service

Provision of expert advice and evaluation on product selection for meeting the requirements of AS/NZS 4020.

AS/NZS 4020 AWQC Approved Products Directory

To extend our services, AWQC lists approved products or materials in a directory of companies (that express an interest) at the following web address www.awqc.com.au/our-services/product-testing. The directory provides an avenue for interested parties to seek information from listed companies regarding products that have been tested by AWQC and have met the requirements of AS/NZS 4020.



Examples of products tested to AS/NZS 4020 include:

- Elastomers
- Greases
- Hot Water Systems
- Epoxy Coatings
- Tap Components Hoses
- Tank Linings
- Pipes
- Sealants
- Valves
- Pumps
- Paints

Call us on 1300 653 366
awqc.com.au

