

Australian/New Zealand Standard™

**Hose and hose assemblies for liquefied
petroleum gases (LP Gas), natural gas
and town gas**



AS/NZS 1869:2012

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee AG-013, Components used for Gas Appliances and Equipment. It was approved on behalf of the Council of Standards Australia on 3 February 2012 and on behalf of the Council of Standards New Zealand on 10 February 2012. This Standard was published on 28 February 2012.

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Australian/New Zealand Standard™

Hose and hose assemblies for liquefied petroleum gases (LP Gas), natural gas and town gas

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee AG-013, Components used for Gas Appliances and Equipment, to supersede AS 1869—1996, *Hose and hose assemblies for liquefied petroleum gases (LP Gas), natural gas and town gas*.

The objective of this Standard is to ensure performance, safety, durability and fitness for purpose of hose and hose assemblies in the gas industry.

The principal changes from the 1996 edition are as follows:

- (a) Re-assessment of the allowable levels of extractable material in each class of hose.
- (b) The introduction of a new method of test for hose extractables for most of the high pressure hose and hose assemblies.
- (c) A guide on pre-conditioning of hoses to lower the amount of residue that will be extracted in service.
- (d) An increase in the upper temperature for the high temperature Accelerated Ageing method of test.
- (e) The addition of a new class of hose.
- (f) The increase in working pressure limit for low pressure hoses.
- (g) The need for a new very high pressure, high temperature hose for automotive liquid injection systems. Refer to Appendix X.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard**Hose and hose assemblies for liquefied petroleum gases (LP Gas),
natural gas and town gas**

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies requirements for hose and hose assemblies for liquefied petroleum gases (LP Gas) (liquid and gaseous phases), natural gas, town gas manufactured from oil products, tempered liquefied petroleum gas and simulated natural gas in transport, automotive, industrial and domestic applications. It provides for hose up to and including 100 mm inside diameter and 2.6 MPa maximum working pressure.

NOTES:

- 1 Appendix A contains recommendations and advice on information which should be provided by the purchaser at the time of placing an enquiry or order.
- 2 A guide to the user for continued in-service performance of the hose assembly has been included as Appendix B. For the convenience of personnel undertaking in-service testing, the limits for continued acceptable performance of hose assemblies have been stated in the Appendix.
- 3 This Standard does not specify requirements for LP Gas hose for welding, which is dealt with in AS 1335.
- 4 Appendix X provides guidance for the use of hoses in LP Gas liquid injection systems that operate above 2.6 MPa.

1.2 REFERENCED DOCUMENTS

The following documents are referred to in this

AS

- | | |
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| 1179 | Glossary of terms for rubber hose |
| 1257 | Bore sizes, test pressures and tolerances on lengths of elastomeric hose |
| 1335 | Hose and hose assemblies for welding, cutting and allied processes |
| 1683 | Methods of test for elastomers |
| 1683.20 | Part 21: Methods of test for rubber—Standard temperatures, humidities and times for conditioning and testing |
| 1683.23 | Part 23: Rubber—Vulcanized—Determination of resistance to liquids |
| 2103 | Dial gauges and dial test indicators (metric series) |
| ISO | |
| 37 | Rubber, vulcanized or thermoplastic—Determination of tensile stress-strain properties |
| 4661 | Rubber, vulcanized or thermoplastic—Preparation of samples and test pieces |
| 4661-1 | Part 1: Physical tests |
| 4671 | Rubber and plastics hoses and hose assemblies—Methods of measurement of the dimensions of hoses and the lengths of hose assemblies |