

AS/NZS 2554:1998

AS/NZS 2554

Australian/New Zealand Standard™

Hose and hose assemblies for air

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The following interests are represented on Committee RU/1:

Australasian Railway Association
Australian Chamber of Commerce and Industry
Australian Gas Association
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Gas Association of New Zealand
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Metal Trades Industry Association of Australia
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Australian/New Zealand Standard™

Hose and hose assemblies for air

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PREFACE

This Standard was prepared by the Standards Australia/Standards New Zealand Committee RU/1, Industrial Hose, to supersede AS 2554—1982, *Hose and hose assemblies for air*, and NZS/BS 5118:1980, *Specification for rubber hoses for compressed air*.

The Standard provides for six classes of air hose characterized by working pressure and duty. Although means of construction and type of component material are not finely detailed, minimum requirements and dimensions are stipulated.

The colour for the cover of air hose has not been previously specified. AS 1345 specifies a light blue colour for air pipes, conduits and ducts, whilst AS 1335 specifies the colour blue for oxygen welding hose. To differentiate between similar hoses used in different applications, and for reasons of safety, there is an optional requirement for the colours to be within the light blue colour code range or within the yellow colour code range, or black, or a combination of any of these colours. However, colours within the dark blue colour code range are not permitted.

The objective of this revision is to standardize a colour for air hose and to nominate fittings for this type of hose in order to separate compressed air applications from welding gas applications.

The principal differences between this edition and the 1982 edition of AS 2554 are as follows:

- (a) A new class of hose has been specified.
- (b) Guidelines for the colour of the hose cover have been given.
- (c) A reference has been made to hose fittings.
- (d) The existing flexibility test has been replaced by a low temperature flexibility test adapted from ISO 5774:1997, *Plastic hoses, textile-reinforced, for compressed air—Specification*.

The principal differences between this edition and the 1980 edition of NZS/BS 5118 are as follows:

- (i) This edition specifies four different maximum working pressures for the various classes of hose, compared to only two in NZS/BS 5118.
- (ii) This edition does not specify a resistance to oil mist in the lining of the hose.
- (iii) This edition does not distinguish between mandrel-made and non-mandrel-made hose.
- (iv) NZS/BS 5118 specifies tensile strength and elongation-at-break for hose.
- (v) Changes in diameter and length at proof pressure during hydrostatic pressure testing are higher for Type 1 hose in NZS/BS 5118.
- (vi) Tests for minimum bend radius, thickness, accelerated ageing and hydrostatic pressure are different.

This Standard differs substantially from ISO 2398:1995, *Rubber hose, textile-reinforced, for compressed air—Specification*, and ISO 5774, in the following areas:

- (A) It is not user friendly to have two separate Standards as per ISO 2398 and ISO 5774, whereas this edition covers the different materials of hose in the one Standard.
- (B) The minimum thickness of lining in ISO 2398 is 1.0 mm, whereas in this edition it is 1.5 mm.

- (C) This Standard specifies hose fitting requirements whereas the ISO Standards do not.
- (D) The adhesion values in this edition suit Australian and New Zealand needs.
- (E) This Standard has an abrasion resistance requirement whereas the ISO Standards do not.
- (F) Optional requirements for the colour of the hose cover have been given in this Standard.

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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