

Australian Standard 1752—1983

FIBRE ROPE— EIGHT-STRAND PLAITED

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Australian Steamship Owners Federation
Confederation of Australian Industry
Cordage Institute of Australia
Department of Defence
Department of Industrial Relations, N.S.W.
Department of Transport
Railways of Australia Committee

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AUSTRALIAN STANDARD

FIBRE ROPE— EIGHT-STRAND PLAITED

AS 1752-1983

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PREFACE

This edition of this standard was prepared by the Association's Committee on Ropes and Cordage under the direction of the Textile Standards Board to supersede AS 1752—1975, Fibre Rope (Eight-strand Plaited Polypropylene). It specifies requirements for eight-strand plaited rope manufactured from the following textile fibres which are described in AS 2450—1981, Glossary of Generic Names for Textile Fibres.

Polyamide (Nylon)
Polyester
Polyethylene
Polypropylene

The 1975 edition specified rope made from polypropylene only. The scope of this new edition has been expanded to deal with ropes made from polyamide, polyester, polyethylene as well as polypropylene fibre. In addition, the colour identification code has been amended to conform to international standards (see also AS 1504, Fibre Rope (Three-strand, Hawser Laid)).

The standard calls for the use of a coloured yarn in one strand of the rope in accordance with ISO 4877, Ropes and Cordage—Colour Code for Identification, to indicate the generic fibre type. Because of differences between the ISO standard and the previous edition of the Australian standard, it is intended to insert two coloured yarns in one strand for a period of 12 months* to apply from the date of publication of the standard. One coloured yarn will represent past Australian practice, the other represents the international standard ISO 4877 as stated in this edition.

The standard is set out in three sections, covering general requirements, manufacturing requirements, and test requirements. Appendices give test procedures together with notes on the care and maintenance of ropes. The standard designates eight-strand plaited ropes by a number equivalent to the diameter in millimetres of three-strand, hawser laid rope† having the same linear density and minimum breaking force. Because of its construction it is otherwise difficult to assign a meaningful designation. The standard covers sizes from 16 to 80.

The colours are as follows:

Fibre type	Colour to past Australian practice	Colour to this Australian Standard
Polyamide (Nylon)	Red	Green
Polyester	Green	Blue
Polyethylene	Grey	Orange
Polypropylene	Red Brown	Brown

The breaking forces for ropes specified in this standard in some cases differ from those stated in relevant ISO standards‡ and of their equivalent hawser laid rope sizes because of differences in Australian manufacturing practices and testing procedures.

*This period may be extended by agreement of the Committee depending on experience with use of the revised standard.

†See AS 1504.

‡See ISO 1140, ISO 1141, ISO 1181, ISO 1346, ISO 1969.

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard

for

FIBRE ROPE—EIGHT-STRAND PLAITED

SECTION 1. SCOPE AND GENERAL REQUIREMENTS

1.1 SCOPE. This standard specifies requirements for eight-strand plaited rope made from the following synthetic generic textile fibres*:

Polamide (Nylon)
Polyester
Polypropylene
Polyethylene

The required physical properties and test methods are stated.

The standard does not deal with hard laid rope or rope manufactured for special requirements.

NOTE: Guidance on procedures for establishing that rope is manufactured to the requirements of this standard is set out in Appendix A.

1.2 REFERENCED DOCUMENTS. The following standards are referred to in this standard:

AS 1199	Sampling Procedures and Tables for Inspection by Attributes
AS 1399	Guide to AS 1199, Sampling Procedures and Tables for Inspection by Attributes
AS 1504	Fibre Rope—Three-strand, Hawser Laid
AS 1821—23	Suppliers Quality Control Systems, Levels 1, 2 and 3
AS 2000	Guide to AS 1821—23, Suppliers Quality Control Systems
AS 2001	Methods of Test for Textiles AS 2001.1.1† Method for Conditioning Textile Materials for Test
AS 2193	Methods for the Calibration and Grading of Force-measuring Systems of Testing Machines
AS 2450	Glossary of Generic Names for Textile Fibres
AS L54	Method for the Determination of Breaking Load and Extension of Yarns and Threads
ISO 1140	Three-strand Polyamide Multifilament Ropes
ISO 1141	Three-strand Polyester Multifilament Ropes
ISO 1142	Three- or Four-strand Manila and Sisal Ropes
ISO 1146	Three-strand (Hawser-laid) and Eight-strand (Plaited) Polypropylene Monofilament or Film Ropes—Required Characteristics
ISO 1969	Three-strand Polyethylene Monofilament Ropes
ISO 4877	Ropes and Cordage—Colour Code for Identification

BS 381C Specification for Colours for Identification, Coding and Special Purposes

BS 4128 Recommendations for the Selection, Use and Care of Man-made Fibre Ropes in Marine Applications.

1.3 DESIGNATION. The rope shall be designated by a number equal to the diameter in millimetres of the three-strand hawser laid rope of the same material having the same linear density and minimum breaking force stated in AS 1504.

1.4 IDENTIFICATION OF FIBRE. The fibre shall be identified by using coloured yarn of polyethylene or multifilament viscose rayon of 56 tex inserted in the centre of one of the strands. The colour of the identifying yarns shall be as set out in Table 1.1. The thread used for identification purposes shall be regarded as an additional yarn in the strand.

The colours should approximate to the standard colours specified in BS 381C as indicated in Table 1.1.

TABLE 1.1
FIBRE IDENTIFICATION COLOUR CODING CHART

Type of rope fibre	Colour of identifying yarn	BS 381C colour
Polyamide	Green	218 Grass Green
Polyester	Blue	104 Azure Blue
Polyethylene Staple	Orange	557 Light Orange
Polypropylene	Brown	414 Golden Brown

NOTE: Attention is drawn to the statement in the preface regarding the past colour coding system used in AS 1504 and AS 1752 and the proposal to include two coloured yarns in the one strand for a period of 12 months from date of publication of this edition.

1.5 MARKING. Rope manufactured and supplied in accordance with this standard shall be clearly labelled with the following information:

- Manufacturer's name and/or trademark.
- Month and year of manufacture.
- Generic type of fibre and form of filaments from which the rope is made.
- Size number.
- Nominal length.
- Mass.

NOTE: Manufacturers who place the number of this Australian standard on eight-strand plaited fibre rope, on packaging or on literature related thereto should ensure that the products are manufactured to comply with the standard.

*See AS 2450.

†See AS 1090 (in course of revision).