AS 1353.2—1990

Australian Standard®

Flat synthetic-webbing slings

Part 2: Care and use

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STANDARDS AUSTRALIA

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The following interests are represented on Committee ME/25:

ACT Administration

Australian Chamber of Manufactures

Confederation of Australian Industry

Department of Defence

Department of Industrial Affairs, Qld

Department of Industrial Relations and Employment, N.S.W.

Department of Industry, Technology and Commerce

Department of Labour, Vic.

Department of Labour and Industry, Tas.

Department of Occupational Health, Safety and Welfare, W.A.

Department of Transport and Communications

Electricity Supply Association of Australia

Metal Trades Industry Association of Australia

Work Health Authority, N.T.

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PREFACE

This Standard was prepared by the Standards Australia Committee on Lifting Tackle, to supersede Appendix B of AS 1353—1974, Synthetic-webbing flat slings.

This Standard is written in mandatory terms, so that it can be applied by Statutory Authorities and included as a contract of employment condition by owners and users of flat synthetic-webbing slings.

It is one of a series of Standards for components that are used in lifting systems. Standards for other components are listed below.

AS
1138 Thimbles for use with wire rope or fibre (natural or synthetic) rope
1353 Flat synthetic-webbing slings
1353.1 Part 1: Product specification
1380 Fibre-rope slings (of natural or synthetic rope)
1438 Wire-coil flat slings
1504 Fibre rope—Three-strand, hawser laid
1666 Wire-rope slings
1752 Fibre rope—Eight-strand plaited
2076 Wire rope grips
2089 Sheave blocks (including ships' cargo blocks) of maximum lift 60 t
2317 Collared eyebolts
2318 Swivels for hoists
2319 Rigging screws and turnbuckles
2321 Short-link chain for lifting purposes (non-calibrated)
2740 Wedge-type sockets
2741 Shackles
2759 Steel wire rope—Application guide
2841 Galvanized steel wire strand
3569 Steel wire ropes
3585 End fittings for flat-webbing slings
3775 Chain slings—Grade T
3776 Lifting components for Grade T chain slings
3777 Shank hooks and large-eye hooks—Maximum 25 t
B291 Lifting rings and links

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Flat synthetic-webbing slings

Part 2: Care and use

1 SCOPE. This Standard specifies practices for the care and use of flat synthetic-webbing slings, but does not consider repairs to slings.

NOTES:

1. The cause of accidents involving flat synthetic-webbing slings often includes some degree of human influence. This Standard requires the slings to comply with AS 1353.1, and places a responsibility on the user of the slings to have adequate knowledge, skill, and sense of responsibility about their use and to use them at all times in a sensible and responsible manner and within their performance capabilities.
2. Statutory authorities may have requirements additional to those in this Standard applying to the use of flat synthetic-webbing slings.

2 APPLICATION. This Standard is for application by responsible and competent persons and organizations. It does not have legal authority in its own right, but may acquire legal standing in any of the following ways:

(a) Adoption by a Statutory Authority.

(b) Reference to compliance with the Standard as a contract of employment condition.

3 INNOVATION. It is not intended that the Standard should impose any unnecessary restriction on the use of new or unusual methods that are as safe as those set out herein.

4 REFERENCED DOCUMENTS. The following documents are referred to in this Standard:

AS
1353 Flat synthetic-webbing slings
1353.1 Part 1: Product specification

1418 SAA Crane Code
1418.1 Part 1: General requirements

3585 End fittings for flat-webbing slings

5 DEFINITIONS. For the purpose of this Standard, the definitions given in AS 1353.1 and those below apply.

5.1 Competent person—a person having practical and theoretical knowledge and relevant experience, such as will enable that person to detect and evaluate any defects and any weaknesses that may affect the intended performance of the equipment.

5.2 Shall—indicates that a statement is mandatory.

5.3 Should—indicates a recommendation.

5.4 Statutory Authority—an authority with statutory powers to control the use of flat synthetic-webbing slings.

5.5 Working load.

5.5.1 *Working load limit (WLL)*—the maximum load that may be applied to the sling, in tension uniformly distributed across its full width, under general conditions of use.

5.5.2 *Safe working load (SWL)*—the maximum load that may be applied to the sling under the particular conditions of use (see Clause 9).

6 SELECTION.

6.1 Product specification. Flat synthetic-webbing slings shall comply with AS 1353.1.

6.2 Material. The sling shall be resistant to any degrading effects from the environment, such as moisture, microbiological attack, ultraviolet light, heat, and surface abrasion.

The sling should be designed to minimize any ingress of harmful particles. This is normally achieved by using a suitable tight weaving, by using a protective sleeve, by heat setting the webbing, or by applying a protective coating.

Also, sling materials should have adequate resistance to any chemicals, or sunlight to which the sling may be subjected. A combination of heat with an acid or alkali will accelerate any deterioration, which will reduce its service life.