Australian Standard®

Synthetic shadecloth

This Australian Standard was prepared by Committee TX/8, Shadecloth. It was approved on behalf of the Council of Standards Australia on 15 November 1993 and published on 14 February 1994.

The following interests are represented on Committee TX/8:

Australian Canvas and Synthetic Products Association
Australian Polyolefin Textiles Association
New South Wales Agriculture
New South Wales TAFE Commission
Nursery Industry Association of Australia
State Training Board, Victoria
The Plastics Industry Association
University of New South Wales

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PREFACE

This Standard was prepared by the Standards Australia Committee on Shadecloth.

The following three aspects of this Standard were developed from a standard for the supply of synthetic shadecloth initiated by the Australian shadecloth industry in 1985:

(a) Measurement of the cover factor of a shadecloth using a standard instrument.

(b) Cover factor ranges for different categories of shadecloth.

(c) The use of a colour code for the convenient identification of cover factor.

Additionally, this Standard specifies—

(i) minimum strength requirements for shadecloth both before and after a set period of exposure to light;

(ii) a method for the determination of the transmission of radiation;

(iii) methods for the calculation of the average percentage transmission, the shade factor, the average percentage UVR transmission, the percentage UVR block and the average percentage PAR transmission; and

(iv) a method for the measurement of solar radiation transmission.

The term 'normative' has been used in this Standard to define the application of the appendix to which it applies. A 'normative' appendix is an integral part of a Standard.

CONTENTS

STANDARDS AUSTRALIA

Australian Standard

Synthetic shadecloth

1 SCOPE This Standard specifies requirements for the performance and labelling of synthetic shadecloth, including classification according to cover factor.

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

AS

2001	Methods of test for textiles
2001.2	Physical tests
2001.2.3	Method 2.3: Determination of breaking force and extension of textile fabrics
2001.2.4	Method 2.4: Determination of bursting pressure of textile fabrics—Hydraulic diaphragm method
2001.2.19	Method 2.19: Determination of bursting force of textile fabrics—Ball burst method
2001.4	Colourfastness tests
2001.4.21	Method 4.21: Determination of colourfastness to light using an artificial light source (mercury vapour, tungsten filament, internally phosphor-coated lamp)

ASTM

E424	Solar energy transmittance and reflectance (terrestrial) of sheet materials

3 DEFINITIONS For the purpose of this Standard, the definitions below apply.

3.1 Cover factor—the percentage area of the cloth covered by the yarns and fibre of the structure determined in accordance with Appendix A.

3.2 PAR—Photosynthetically active radiation (range 400 to 700 nm).

3.3 Shadecloth—a synthetic fabric designed to prevent a proportion of sunlight or other light from reaching the area beyond the shadecloth.

3.4 Shade factor—the percentage of normally incident UV-visible radiation in the range 290 to 770 nm not transmitted by a material, determined in accordance with Appendix B.

3.5 UVR—Ultraviolet radiation (range 290 to 400 nm).

4 CLASSIFICATION AND DESIGNATION Shadecloth shall be classified according to cover factor determined in accordance with Appendix A, and shall be designated in accordance with Table 1.

5 PERFORMANCE REQUIREMENTS

5.1 Strength

5.1.1 *Knitted shadecloth* Knitted shadecloth shall be tested in accordance with either Method A of AS 2001.2.4, or AS 2001.2.19, as appropriate.

When tested in accordance with Method A of AS 2001.2.4 (in a wet or dry condition) the mean bursting pressure shall be not less than 1000 kPa.

When tested in accordance with AS 2001.2.19 (in a wet or dry condition), the mean bursting force shall be not less than 400 N.