



# Shadecloth Test Report

Analysed for: Gale Pacific  
ARPANSA Ref: 7264-13

Client Reference: 49

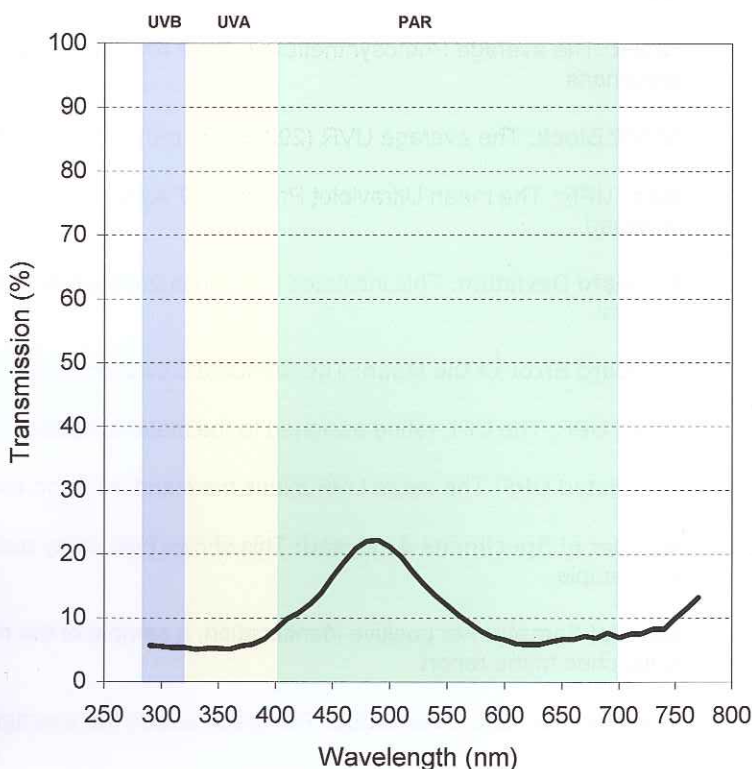
## Sample Information

Sample Type: Shadecloth      Sample Colour: Turquoise  
Analysis Date: 17/03/2009      Instrumentation: Varian Cary 50, s/n EL05083263

Description: Turquoise Synthesis Commercial 95 Shadecloth

## Shadecloth Test Results      Transmission Characteristics

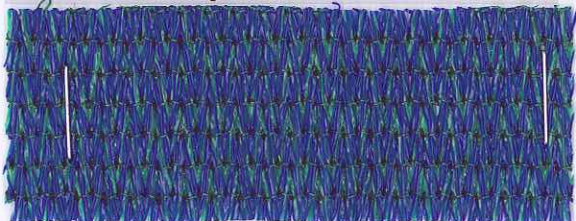
|               |            |
|---------------|------------|
| Cover Factor: | 94.0 ± 4.9 |
| Shade Factor: | 90.0 ± 5.2 |
| % Tav:        | 10.0 ± 5.2 |
| % UVA         | 6.5 ± 4.9  |
| % UVB         | 6.4 ± 5.2  |
| % UVR:        | 5.7 ± 4.8  |
| % PAR:        | 11.7 ± 5.2 |
| % UVR Block:  | 94.3 ± 4.8 |



## UPF Results

|                               |         |
|-------------------------------|---------|
| Mean UPF:                     | 18.0    |
| Standard Deviation:           | 6.0     |
| Standard Error of the Mean:   | 6.2     |
| Calculated UPF:               | 11.9    |
| Rated UPF:                    | Unrated |
| Number of Specimens Analysed: | 10      |

## Material Sample



## Review of Results

When designing shade structures, shade sails or other shade devices consider using the highest rated shadecloth available. Note that the UPF rating is for the material only and does not address the design of the product.

When shadecloth is to be used for domestic purposes such as shade structures or umbrellas, ultraviolet radiation transmission figures or solar radiation figures should be used as a guide only. These figures do not take into account vital factors such as the design and size of the shade structure, the distance of the shadecloth from the subjects, reflected and diffuse solar irradiance and the physical location of the subjects within the shade structure (e.g. at the edge or at the centre).

## Disclaimer

*This report has been prepared in accordance with standard AS 4174-1994 - Synthetic Shadecloth, Appendix A and Appendix B and AS/NZS 4399:1996 - Sun Protective Clothing - Evaluation and classification, Appendix A. The solar spectrum described in table B2 of this standard was used to calculate the protection factor results. The results in this report are applicable to the sample tested and may not apply to other batches of the same material or similar materials. It is a condition of the provision of these test results that you do not use the name of the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) or the Commonwealth of Australia, or any words, marks or devices which may imply a connection with ARPANSA or the Commonwealth of Australia, in connection with the promotion or sale of your products, unless ARPANSA has given express written authority to do so. This test report may only be reproduced in full and without alteration.*

Technician: Alan McLennan 1813109      Signatory: John Javorniczky 19/03/09

## Guide to Interpretation of Shadecloth reports

*At ARPANSA, shadecloth testing is carried out in accordance with Australian Standard AS4174-1994 Synthetic Shadecloth. The UPF result is reported in accordance with AS/NZS4399:1996 Sun protective clothing – Evaluation and classification.*

**Cover Factor:** The percentage area of the cloth covered by the yarns and fibre of the structure of the material.

**Shade Factor:** The percentage of normally incident UV-visible radiation in the range 290nm to 770nm not transmitted by the material.

**%UVA:** The average UVA (315 to 400 nm) radiation passing through the test specimens.

**%UVB:** The average UVB (290 to 315 nm) radiation passing through the test specimens.

**%UVR:** The average Ultraviolet radiation (290 to 400 nm) passing through the test specimens

**%PAR:** The average Photosynthetically active radiation (400 to 700 nm) passing through the test specimens

**%UVR Block:** The average UVR (290 to 400 nm) not transmitted by the test specimens

**Mean UPF:** The mean Ultraviolet Protection Factor is the average of the UPF values of each specimen analysed.

**Standard Deviation:** This indicates how much variation in UPF rating there is across the surface of the material.

**Standard Error of the Mean:** The Standard Deviation adjusted for the number of specimens analysed.

**Rated UPF:** The UPF rating assigned to the material tested. Ranges from 15 to 50, and 50+.

**Calculated UPF:** The mean UPF minus the standard error, rounded down to the nearest multiple of five.

**Number of Specimens Analysed:** This shows how many measurements (or scans) were made on the test sample.

**Material Sample:** For positive identification, a sample of the material tested, or an image of the product, is attached to the report.

**Transmission Characteristics:** The graph shows the average of the measured transmissions.