

## **Australian Radiation Protection and Nuclear Safety Agency**

# **Shadecloth Test Report**

Analysed for: Alnet Pty Ltd **ARPANSA Ref:** 10554-1

**Client Reference:** 2859

Sample Information

Sample Type: Knitted Shadecloth **Sample Colour:** Yellow

**Analysis Date:** Instrumentation: 15/07/2015

Bentham DTMc300F, s/n 14294

**Description:** Yellow Extrablock HDPE Shadecloth, Non-Fire Retardent

### **Shadecloth Test Results**

### Transmission Characteristics

**Cover Factor:**  $94.3 \pm$ 1.1 **Designation:** n/a Colour code: n/a **Shade Factor:**  $75.6 \pm$ 1.4 % Tay: 24.4 +1.4 % UVR:  $5.8 \pm$ 1.1 % PAR:  $26.5 \pm$ 1.5 % UVR Block: 94.2 ± 1.1

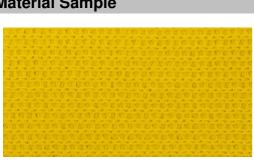
**Number of Specimens Analysed:** 10

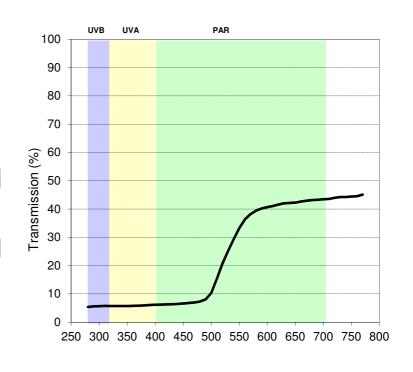
**Protection Factor Results** 

17.6 ± 1.9

Calculated PF: 16

**Material Sample** 





Wavelength (nm)

### **Review of Results**

When designing shade structures consider using the most protective shadecloth available. Note that the calculated protection factor is for the material only and does not address the design of the product as it does not account for the effect of indirect UVR when situated at a distance from the persons being protected. NOTE: The following disclaimer must be used when quoting the calculated protection factor (PF) results from this test report: "The calculated protection factor is for the material only and does not account for the effect of indirect UVR when situated at a distance from the persons being protected."

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Technician:

**1**5/07/2015

Signatory:



## **Australian Radiation Protection and Nuclear Safety Agency**

# **Shadecloth Test Report**

Analysed for: Alnet Pty Ltd **ARPANSA Ref:** 10554-2 **Client Reference:** 

Sample Information

Sample Type: Knitted Shadecloth **Sample Colour:** Red

Instrumentation: **Analysis Date:** 15/07/2015 Bentham DTMc300F, s/n 14294

**Description:** Red Extrablock HDPE Shadecloth, Non-Fire Retardent

### **Shadecloth Test Results**

### Transmission Characteristics

2859

$96.9 \pm$	0.7
n/a	
n/a	
$85.8 \pm$	0.9
14.2 $\pm$	0.9
$3.1 \pm$	0.7
13.2 ±	0.9
$96.9 \pm$	0.7

**Number of Specimens Analysed:** 10

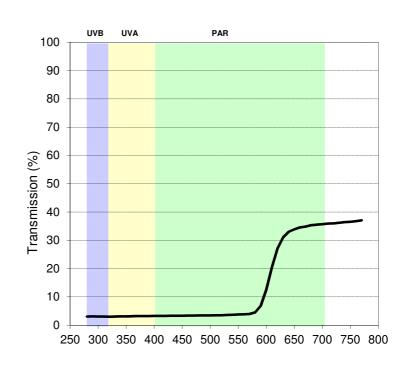
### **Protection Factor Results**

33.1 ±

Calculated PF: 29

### **Material Sample**





Wavelength (nm)

### **Review of Results**

When designing shade structures consider using the most protective shadecloth available. Note that the calculated protection factor is for the material only and does not address the design of the product as it does not account for the effect of indirect UVR when situated at a distance from the persons being protected. NOTE: The following disclaimer must be used when quoting the calculated protection factor (PF) results from this test report: "The calculated protection factor is for the material only and does not account for the effect of indirect UVR when situated at a distance from the persons being protected."

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Technician:

- 15/07/2015

Signatory:



## **Australian Radiation Protection and Nuclear Safety Agency**

# **Shadecloth Test Report**

Analysed for: Alnet Pty Ltd
ARPANSA Ref: 10554-3

Client Reference: 2859

Sample Information

Sample Type: Knitted Shadecloth Sample Colour:

Analysis Date: 15/07/2015 Instrumentation: Bentham DTMc300F, s/n 14294

**Description:** Plain Beige Extrablock HDPE Shadecloth, Non-Fire Retardent

### **Shadecloth Test Results**

### **Transmission Characteristics**

Plain Beige

Cover Factor:	$97.3 \pm$	0.5
Designation:	n/a	
Colour code:	n/a	
Shade Factor:	87.1 ±	0.9
% Tav:	12.9 ±	0.9
% UVR:	$3.2 \pm$	0.6
% PAR:	14.2 ±	1.0
% UVR Block:	96.8 $\pm$	0.6

Number of Specimens Analysed: 10

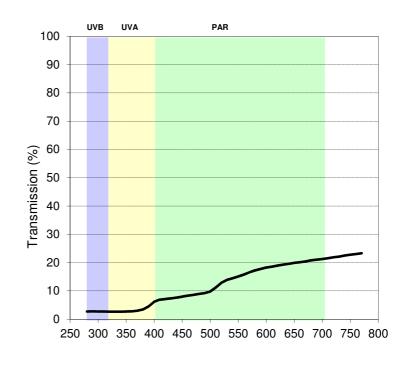
### **Protection Factor Results**

**PF:**  $36.6 \pm 3.4$ 

Calculated PF: 33

### **Material Sample**





Wavelength (nm)

### **Review of Results**

When designing shade structures consider using the most protective shadecloth available. Note that the calculated protection factor is for the material only and does not address the design of the product as it does not account for the effect of indirect UVR when situated at a distance from the persons being protected. NOTE: The following disclaimer must be used when quoting the calculated protection factor (PF) results from this test report: "The calculated protection factor is for the material only and does not account for the effect of indirect UVR when situated at a distance from the persons being protected."

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## **Australian Radiation Protection and Nuclear Safety Agency**

# **Shadecloth Test Report**

Analysed for: Alnet Pty Ltd ARPANSA Ref: 10554-4

Client Reference: 2859

Sample Information

Sample Type: Knitted Shadecloth Sample Colour: Plain Cream

Analysis Date: 15/07/2015 Instrumentation: Bentham DTMc300F, s/n 14294

**Description:** Plain Cream Extrablock HDPE Shadecloth, Non-Fire Retardent

### **Shadecloth Test Results**

### **Transmission Characteristics**

Cover Factor:	93.6 ±	1.5
Designation:	n/a	
Colour code:	n/a	
Shade Factor:	$73.8 \pm$	1.4
% Tav:	$26.2 \pm$	1.4
% UVR:	$7.8 \pm$	1.5
% PAR:	$30.1 \pm$	1.4
% UVR Block:	92.2 ±	1.5

Number of Specimens Analysed: 10

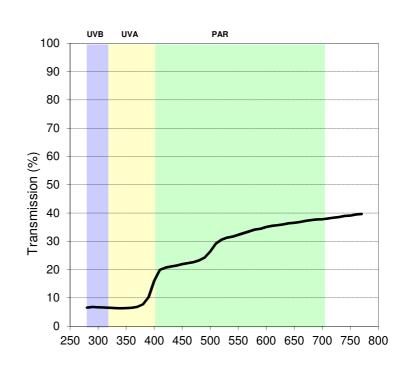
### **Protection Factor Results**

**PF:** 15.2 ± 1.8

Calculated PF: 13

### **Material Sample**





Wavelength (nm)

### **Review of Results**

When designing shade structures consider using the most protective shadecloth available. Note that the calculated protection factor is for the material only and does not address the design of the product as it does not account for the effect of indirect UVR when situated at a distance from the persons being protected. NOTE: The following disclaimer must be used when quoting the calculated protection factor (PF) results from this test report: "The calculated protection factor is for the material only and does not account for the effect of indirect UVR when situated at a distance from the persons being protected."

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## **Australian Radiation Protection and Nuclear Safety Agency**

# **Shadecloth Test Report**

**Analysed for:** Alnet Pty Ltd **ARPANSA Ref:** 10554-5

Client Reference: 2859

Sample Information

**Analysis Date:** 

Sample Type: Knitted Shadecloth

15/07/2015

Sample Colour: Navy

**Instrumentation:** Bentham DTMc300F, s/n 14294

**Description:** Navy Extrablock HDPE Shadecloth, Fire Retardent

### **Shadecloth Test Results**

### **Transmission Characteristics**

**Cover Factor:** 96.4 ± 1.5 **Designation:** n/a Colour code: n/a **Shade Factor:**  $95.5 \pm$ 1.4 % Tay: 4.5 +1.4 % UVR:  $3.8 \pm$ 1.4 % PAR:  $4.6 \pm$ 1.4 % UVR Block: 96.2 ± 1.4

Number of Specimens Analysed: 10

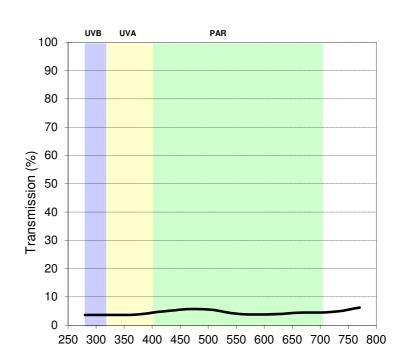
**Protection Factor Results** 

**PF:**  $28.3 \pm 5.3$ 

Calculated PF: 23

### **Material Sample**





Wavelength (nm)

### **Review of Results**

When designing shade structures consider using the most protective shadecloth available. Note that the calculated protection factor is for the material only and does not address the design of the product as it does not account for the effect of indirect UVR when situated at a distance from the persons being protected. NOTE: The following disclaimer must be used when quoting the calculated protection factor (PF) results from this test report: "The calculated protection factor is for the material only and does not account for the effect of indirect UVR when situated at a distance from the persons being protected."

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## **Australian Radiation Protection and Nuclear Safety Agency**

# **Shadecloth Test Report**

**Analysed for:** Alnet Pty Ltd **ARPANSA Ref:** 10554-6

ISA Ref: 10554-6 Client Reference: 2859

Sample Information

Sample Type: Knitted Shadecloth Sample Colour: Olive Green

Analysis Date: 15/07/2015 Instrumentation: Bentham DTMc300F, s/n 14294

**Description:** Olive Green Extrablock HDPE Shadecloth, Fire Retardent

### **Shadecloth Test Results**

### **Transmission Characteristics**

**Cover Factor:** 96.4 ± 0.6 **Designation:** n/a Colour code: n/a **Shade Factor:**  $95.5 \pm$ 0.6 % Tay: 4.5 +0.6 % UVR:  $3.5 \pm$ 0.6 % PAR:  $4.5 \pm$ 0.6 % UVR Block:  $96.5 \pm$ 0.6

Number of Specimens Analysed: 10

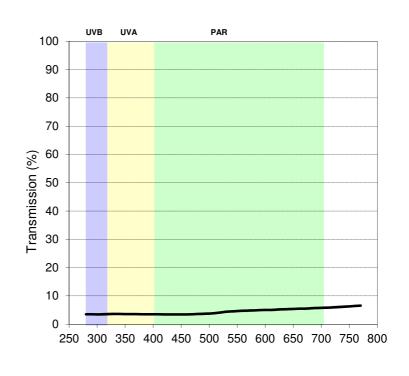
**Protection Factor Results** 

**PF:**  $28.7 \pm 2.5$ 

Calculated PF: 26

### **Material Sample**





Wavelength (nm)

### **Review of Results**

When designing shade structures consider using the most protective shadecloth available. Note that the calculated protection factor is for the material only and does not address the design of the product as it does not account for the effect of indirect UVR when situated at a distance from the persons being protected. NOTE: The following disclaimer must be used when quoting the calculated protection factor (PF) results from this test report: "The calculated protection factor is for the material only and does not account for the effect of indirect UVR when situated at a distance from the persons being protected."

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## **Australian Radiation Protection and Nuclear Safety Agency**

# **Shadecloth Test Report**

Analysed for: Alnet Pty Ltd **ARPANSA Ref:** 10554-7

**Client Reference:** 2859

Sample Information

Sample Type: Knitted Shadecloth **Sample Colour:** True Blue

Instrumentation: Bentham DTMc300F, s/n 14294 **Analysis Date:** 15/07/2015

**Description:** True Blue Extrablock HDPE Shadecloth, Fire Retardent

### **Shadecloth Test Results**

### Transmission Characteristics

**Cover Factor:** 94.9 ± 1.4 **Designation:** n/a Colour code: n/a **Shade Factor:**  $88.7 \pm$ 1.2 % Tay: 11.3 +1.2 % UVR:  $6.9 \pm$ 1.4 % PAR:  $13.5 \pm$ 1.2 % UVR Block: 93.1 ± 1.4

**Number of Specimens Analysed:** 10

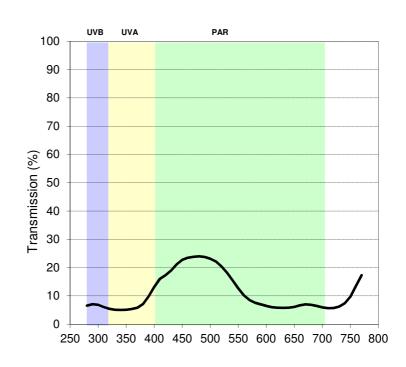
### **Protection Factor Results**

16.2 ± 1.9

Calculated PF: 14

### **Material Sample**





Wavelength (nm)

### **Review of Results**

When designing shade structures consider using the most protective shadecloth available. Note that the calculated protection factor is for the material only and does not address the design of the product as it does not account for the effect of indirect UVR when situated at a distance from the persons being protected. NOTE: The following disclaimer must be used when quoting the calculated protection factor (PF) results from this test report: "The calculated protection factor is for the material only and does not account for the effect of indirect UVR when situated at a distance from the persons being protected."

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## **Australian Radiation Protection and Nuclear Safety Agency**

# **Shadecloth Test Report**

Analysed for: Alnet Pty Ltd

ARPANSA Ref: 10554-8 Client Reference: 2859

Sample Information

Sample Type: Knitted Shadecloth Sample Colour: Brown

Analysis Date: 15/07/2015 Instrumentation: Bentham DTMc300F, s/n 14294

**Description:** Brown Extrablock HDPE Shadecloth, Fire Retardent

### **Shadecloth Test Results**

### **Transmission Characteristics**

**Cover Factor:** 95.0 ± 0.9 **Designation:** n/a Colour code: n/a **Shade Factor:**  $93.2 \pm$ 1.1 % Tay: 6.8 +1 1 % UVR: 0.9  $4.9 \pm$ % PAR:  $6.8 \pm$ 1.1 % UVR Block: 95.1 ± 0.9

Number of Specimens Analysed: 10

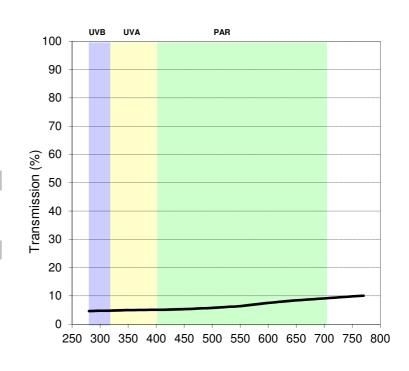
**Protection Factor Results** 

**PF:** 21.0 ± 2.0

Calculated PF: 19

### **Material Sample**





Wavelength (nm)

### **Review of Results**

When designing shade structures consider using the most protective shadecloth available. Note that the calculated protection factor is for the material only and does not address the design of the product as it does not account for the effect of indirect UVR when situated at a distance from the persons being protected. NOTE: The following disclaimer must be used when quoting the calculated protection factor (PF) results from this test report: "The calculated protection factor is for the material only and does not account for the effect of indirect UVR when situated at a distance from the persons being protected."

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## **Australian Radiation Protection and Nuclear Safety Agency**

# **Shadecloth Test Report**

Analysed for: Alnet Pty Ltd

ARPANSA Ref: 10554-9 Client Reference: 2859

**Sample Information** 

Sample Type: Knitted Shadecloth Sample Colour: Forest Green

Analysis Date: 15/07/2015 Instrumentation: Bentham DTMc300F, s/n 14294

**Description:** Forest Green Extrablock HDPE Shadecloth, Fire Retardent

#### **Shadecloth Test Results**

### **Transmission Characteristics**

Cover Factor:	$96.2 \pm$	0.5
Designation:	n/a	
Colour code:	n/a	
Shade Factor:	$93.7 \pm$	0.7
% Tav:	$6.3 \pm$	0.7
% UVR:	$4.0 \pm$	0.5
% PAR:	$7.0 \pm$	8.0
% UVR Block:	96.0 $\pm$	0.5

Number of Specimens Analysed: 10

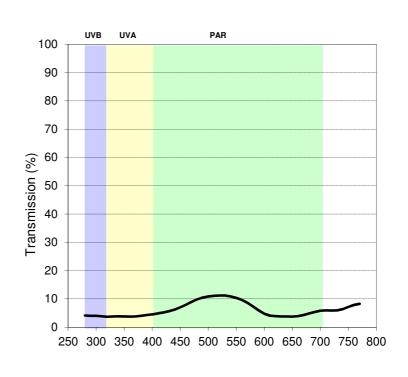
### **Protection Factor Results**

**PF:** 25.7 ± 1.5

Calculated PF: 24

### **Material Sample**





Wavelength (nm)

### **Review of Results**

When designing shade structures consider using the most protective shadecloth available. Note that the calculated protection factor is for the material only and does not address the design of the product as it does not account for the effect of indirect UVR when situated at a distance from the persons being protected. NOTE: The following disclaimer must be used when quoting the calculated protection factor (PF) results from this test report: "The calculated protection factor is for the material only and does not account for the effect of indirect UVR when situated at a distance from the persons being protected."

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15/07/2015

Alan McLenna

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## **Australian Radiation Protection and Nuclear Safety Agency**

# **Shadecloth Test Report**

Analysed for: Alnet Pty Ltd ARPANSA Ref: 10554-10

Client Reference: 2859

Sample Information

**Analysis Date:** 

Sample Type: Knitted Shadecloth

15/07/2015

Sample Colour: Bottle Green

**Instrumentation:** Bentham DTMc300F, s/n 14294

**Description:** Bottle Green Extrablock HDPE Shadecloth, Fire Retardent

### **Shadecloth Test Results**

### **Transmission Characteristics**

**Cover Factor:** 94.6 ± 1.1 **Designation:** n/a Colour code: n/a **Shade Factor:**  $91.0 \pm$ 1.0 % Tay: 9.0 +1.0 % UVR:  $6.1 \pm$ 1.1 % PAR: 10.1 ± 0.9 % UVR Block:  $93.9 \pm$ 1.1

Number of Specimens Analysed: 10

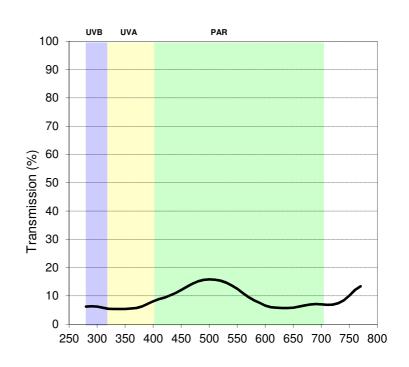
**Protection Factor Results** 

**PF:** 17.1 ± 1.5

Calculated PF: 16

### **Material Sample**





Wavelength (nm)

### **Review of Results**

When designing shade structures consider using the most protective shadecloth available. Note that the calculated protection factor is for the material only and does not address the design of the product as it does not account for the effect of indirect UVR when situated at a distance from the persons being protected. NOTE: The following disclaimer must be used when quoting the calculated protection factor (PF) results from this test report: "The calculated protection factor is for the material only and does not account for the effect of indirect UVR when situated at a distance from the persons being protected."

#### **Disclaimer**

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## **Australian Radiation Protection and Nuclear Safety Agency**

# **Shadecloth Test Report**

Analysed for: Alnet Pty Ltd ARPANSA Ref: 10554-11

**Client Reference:** 2859

Sample Information

**Analysis Date:** 

Sample Type: Knitted Shadecloth 15/07/2015

**Sample Colour:** Instrumentation: Bentham DTMc300F, s/n 14294

Charcoal

**Description:** Charcoal Extrablock HDPE Shadecloth, Fire Retardent

### **Shadecloth Test Results**

### Transmission Characteristics

**Cover Factor:**  $95.8 \pm$ 1.6 **Designation:** n/a Colour code: n/a **Shade Factor:**  $94.2 \pm$ 1.8 % Tay: 5.8 +1.8 % UVR:  $4.3 \pm$ 1.7 % PAR:  $5.9 \pm$ 1.8 % UVR Block: 95.7 ± 1.7

**Number of Specimens Analysed:** 10

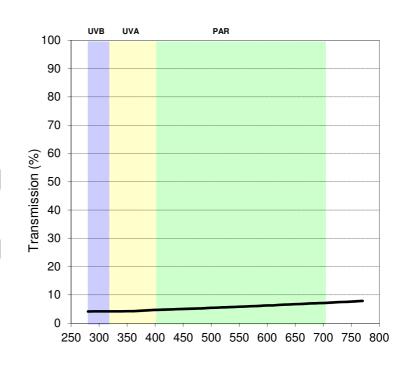
### **Protection Factor Results**

24.6 ± 4.6

Calculated PF: 20

### **Material Sample**





Wavelength (nm)

### **Review of Results**

When designing shade structures consider using the most protective shadecloth available. Note that the calculated protection factor is for the material only and does not address the design of the product as it does not account for the effect of indirect UVR when situated at a distance from the persons being protected. NOTE: The following disclaimer must be used when quoting the calculated protection factor (PF) results from this test report: "The calculated protection factor is for the material only and does not account for the effect of indirect UVR when situated at a distance from the persons being protected."

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## **Australian Radiation Protection and Nuclear Safety Agency**

# **Shadecloth Test Report**

Analysed for: Alnet Pty Ltd

ARPANSA Ref: 10554-12

Client Reference: 2859

**Sample Information** 

Sample Type: Knitted Shadecloth Sample Colour: Midnight

Analysis Date: 15/07/2015 Instrumentation: Bentham DTMc300F, s/n 14294

**Description:** Midnight Extrablock HDPE Shadecloth, Fire Retardent

#### **Shadecloth Test Results**

### **Transmission Characteristics**

Cover Factor:	$97.7 \pm$	1.5
Designation:	n/a	
Colour code:	n/a	
Shade Factor:	$97.6 \pm$	1.5
% Tav:	$2.4~\pm$	1.5
% UVR:	$2.3 \pm$	1.5
% PAR:	$2.3 \pm$	1.5
% UVR Block:	$97.7 \pm$	1.5

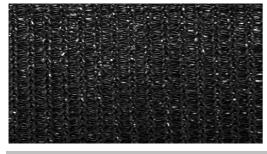
Number of Specimens Analysed: 10

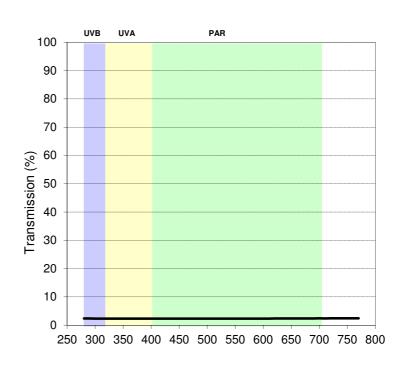
### **Protection Factor Results**

**PF:**  $46.6 \pm 14.1$ 

Calculated PF: 33

### **Material Sample**





Wavelength (nm)

### **Review of Results**

When designing shade structures consider using the most protective shadecloth available. Note that the calculated protection factor is for the material only and does not address the design of the product as it does not account for the effect of indirect UVR when situated at a distance from the persons being protected. NOTE: The following disclaimer must be used when quoting the calculated protection factor (PF) results from this test report: "The calculated protection factor is for the material only and does not account for the effect of indirect UVR when situated at a distance from the persons being protected."

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## **Australian Radiation Protection and Nuclear Safety Agency**

# **Shadecloth Test Report**

Analysed for: Alnet Pty Ltd

ARPANSA Ref: 10554-13

Client Reference: 2859

**Sample Information** 

Sample Type: Knitted Shadecloth Sample Colour: Latte

Analysis Date: 15/07/2015 Instrumentation: Bentham DTMc300F, s/n 14294

**Description:** Latte Extrablock HDPE Shadecloth, Fire Retardent

### **Shadecloth Test Results**

### **Transmission Characteristics**

**Cover Factor:** 95.0 ± 0.6 **Designation:** n/a Colour code: n/a **Shade Factor:**  $89.6 \pm$ 0.7 % Tay: 10.4 +0.7 % UVR:  $5.4 \pm$ 0.6 % PAR: 11.1 ± 0.7 % UVR Block: 94.6 ± 0.6

Number of Specimens Analysed: 10

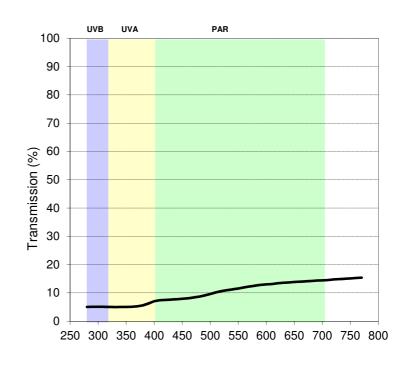
**Protection Factor Results** 

**PF:** 19.7 ± 1.3

Calculated PF: 18

### **Material Sample**





Wavelength (nm)

### **Review of Results**

When designing shade structures consider using the most protective shadecloth available. Note that the calculated protection factor is for the material only and does not address the design of the product as it does not account for the effect of indirect UVR when situated at a distance from the persons being protected. NOTE: The following disclaimer must be used when quoting the calculated protection factor (PF) results from this test report: "The calculated protection factor is for the material only and does not account for the effect of indirect UVR when situated at a distance from the persons being protected."

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**15/07/2015** 

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## **Australian Radiation Protection and Nuclear Safety Agency**

# **Shadecloth Test Report**

Analysed for: Alnet Pty Ltd

ARPANSA Ref: 10554-14

Client Reference:

**Sample Information** 

Sample Type: Knitted Shadecloth Sample Colour: Sun Blaze

Analysis Date: 15/07/2015 Instrumentation: Bentham DTMc300F, s/n 14294

**Description:** Sun Blaze Extrablock HDPE Shadecloth, Fire Retardent

### **Shadecloth Test Results**

### **Transmission Characteristics**

2859

**Cover Factor:**  $93.5 \pm$ 1.0 **Designation:** n/a Colour code: n/a **Shade Factor:**  $91.0 \pm$ 1.2 % Tay: 9.0 +1.2 % UVR:  $6.4 \pm$ 1.1 % PAR:  $8.5 \pm$ 1.2 % UVR Block: 93.6 ± 1.1

**Number of Specimens Analysed:** 10

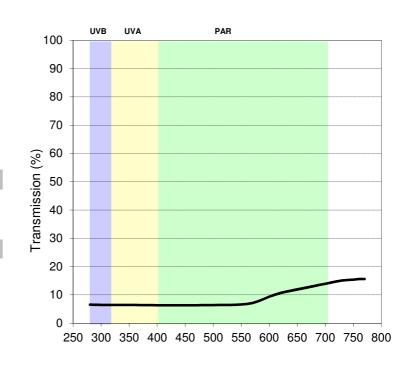
### **Protection Factor Results**

**PF:**  $15.5 \pm 1.3$ 

Calculated PF: 14

### **Material Sample**





Wavelength (nm)

### **Review of Results**

When designing shade structures consider using the most protective shadecloth available. Note that the calculated protection factor is for the material only and does not address the design of the product as it does not account for the effect of indirect UVR when situated at a distance from the persons being protected. NOTE: The following disclaimer must be used when quoting the calculated protection factor (PF) results from this test report: "The calculated protection factor is for the material only and does not account for the effect of indirect UVR when situated at a distance from the persons being protected."

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## **Australian Radiation Protection and Nuclear Safety Agency**

# **Shadecloth Test Report**

Analysed for: Alnet Pty Ltd ARPANSA Ref: 10554-15

**Client Reference:** 2859

Sample Information

**Analysis Date:** 

Sample Type: Knitted Shadecloth **Sample Colour:** Plain Silver

Instrumentation: Bentham DTMc300F, s/n 14294 15/07/2015

**Description:** Plain Silver Extrablock HDPE Shadecloth, Fire Retardent

### **Shadecloth Test Results**

### Transmission Characteristics

**Cover Factor:** 87.8 ± 0.8 **Designation:** Extra-heavy Colour code: n/a **Shade Factor:**  $87.9 \pm$ 0.8 % Tay: 12.1 +0.8 % UVR: 12.2 ± 0.8 % PAR: 12.2 ± 0.8 % UVR Block:  $87.8 \pm$ 0.8

**Number of Specimens Analysed:** 10

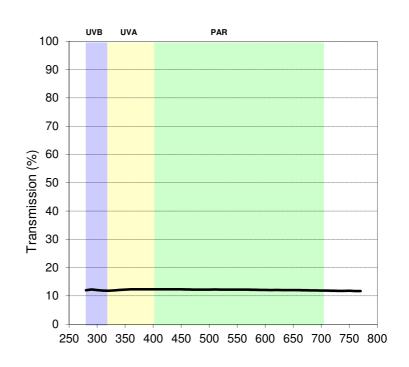
**Protection Factor Results** 

PF:  $8.4 \pm$ 0.3

Calculated PF: 8

### **Material Sample**





Wavelength (nm)

### **Review of Results**

When designing shade structures consider using the most protective shadecloth available. Note that the calculated protection factor is for the material only and does not address the design of the product as it does not account for the effect of indirect UVR when situated at a distance from the persons being protected. NOTE: The following disclaimer must be used when quoting the calculated protection factor (PF) results from this test report: "The calculated protection factor is for the material only and does not account for the effect of indirect UVR when situated at a distance from the persons being protected."

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## **Australian Radiation Protection and Nuclear Safety Agency**

# **Shadecloth Test Report**

Analysed for: Alnet Pty Ltd

ARPANSA Ref: 10554-16

Client Reference: 2859

**Sample Information** 

Sample Type: Knitted Shadecloth Sample Colour: Mint Green

Analysis Date: 15/07/2015 Instrumentation: Bentham DTMc300F, s/n 14294

**Description:** Mint Green Extrablock HDPE Shadecloth, Fire Retardent

### **Shadecloth Test Results**

### **Transmission Characteristics**

Cover Factor:	95.1 ±	1.3
Designation:	n/a	
Colour code:	n/a	
Shade Factor:	$92.7 \pm$	1.0
% Tav:	$7.3~\pm$	1.0
% UVR:	5.1 ±	1.3
% PAR:	7.7 ±	1.0
% UVR Block:	94.9 $\pm$	1.3

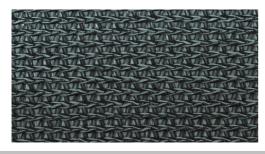
Number of Specimens Analysed: 10

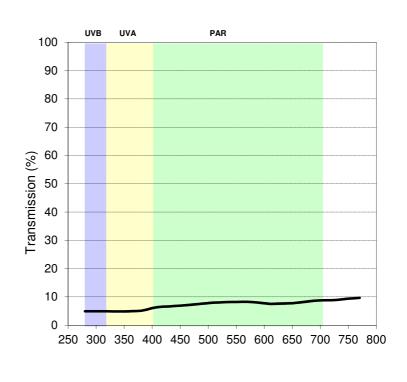
### **Protection Factor Results**

**PF:**  $20.6 \pm 2.3$ 

Calculated PF: 18

### **Material Sample**





Wavelength (nm)

### **Review of Results**

When designing shade structures consider using the most protective shadecloth available. Note that the calculated protection factor is for the material only and does not address the design of the product as it does not account for the effect of indirect UVR when situated at a distance from the persons being protected. NOTE: The following disclaimer must be used when quoting the calculated protection factor (PF) results from this test report: "The calculated protection factor is for the material only and does not account for the effect of indirect UVR when situated at a distance from the persons being protected."

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## **Australian Radiation Protection and Nuclear Safety Agency**

# **Shadecloth Test Report**

Analysed for: Alnet Pty Ltd

ARPANSA Ref: 10554-17

Client Reference: 2859

**Sample Information** 

Sample Type: Knitted Shadecloth Sample Colour: Dove Blue

Analysis Date: 15/07/2015 Instrumentation: Bentham DTMc300F, s/n 14294

**Description:** Dove Blue Extrablock HDPE Shadecloth, Fire Retardent

### **Shadecloth Test Results**

### **Transmission Characteristics**

Cover Factor:	93.3 ±	1.3
Designation:	n/a	
Colour code:	n/a	
Shade Factor:	$90.0 \pm$	1.3
% Tav:	10.0 ±	1.3
% UVR:	$7.3~\pm$	1.3
% PAR:	10.6 ±	1.3
% UVR Block:	92.7 $\pm$	1.3

Number of Specimens Analysed: 10

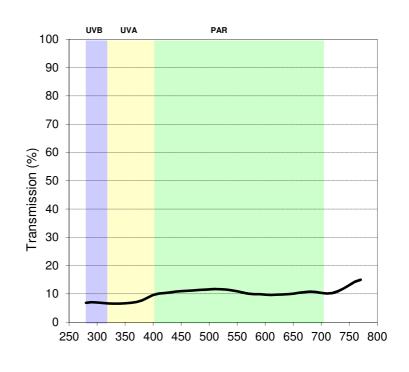
### **Protection Factor Results**

**PF:** 14.7 ± 1.4

Calculated PF: 13

### **Material Sample**





Wavelength (nm)

### **Review of Results**

When designing shade structures consider using the most protective shadecloth available. Note that the calculated protection factor is for the material only and does not address the design of the product as it does not account for the effect of indirect UVR when situated at a distance from the persons being protected. NOTE: The following disclaimer must be used when quoting the calculated protection factor (PF) results from this test report: "The calculated protection factor is for the material only and does not account for the effect of indirect UVR when situated at a distance from the persons being protected."

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## **Australian Radiation Protection and Nuclear Safety Agency**

# **Shadecloth Test Report**

Analysed for: Alnet Pty Ltd ARPANSA Ref: 10554-18

Client Reference: 2859

Sample Information

Sample Type: Knitted Shadecloth Sample Colour:

Analysis Date: 15/07/2015 Instrumentation: Bentham DTMc300F, s/n 14294

**Description:** Oxide Red Extrablock HDPE Shadecloth, Fire Retardent

#### **Shadecloth Test Results**

### **Transmission Characteristics**

Oxide Red

**Cover Factor:** 93.1 ± 0.7 **Designation:** n/a Colour code: n/a **Shade Factor:**  $90.9 \pm$ 0.7 % Tay: 9.1 +0.7 % UVR:  $6.9 \pm$ 0.7 % PAR:  $8.7 \pm$ 0.6 % UVR Block: 93.1 ± 0.7

Number of Specimens Analysed: 10

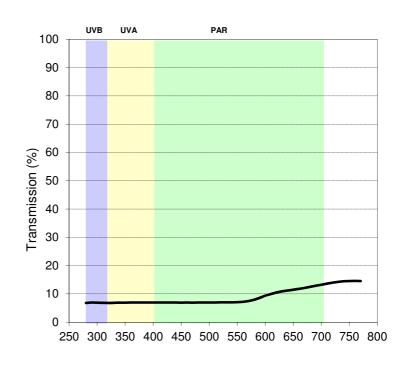
### **Protection Factor Results**

**PF:**  $14.6 \pm 0.8$ 

Calculated PF: 14

### **Material Sample**





Wavelength (nm)

### **Review of Results**

When designing shade structures consider using the most protective shadecloth available. Note that the calculated protection factor is for the material only and does not address the design of the product as it does not account for the effect of indirect UVR when situated at a distance from the persons being protected. NOTE: The following disclaimer must be used when quoting the calculated protection factor (PF) results from this test report: "The calculated protection factor is for the material only and does not account for the effect of indirect UVR when situated at a distance from the persons being protected."

#### **Disclaimer**

This report has been prepared in accordance with standard AS 4174-1994 - Synthetic Shadecloth, Appendix A and Appendix B. The ultraviolet radiation Protection Factor in this report is calculated in accordance with "UVR Protection offered by Shadecloths and Polycarbonates" published in Radiation Protection in Australia 1995, 13 (2) 50-54. When shadecloth is to be used for non-horticultural purposes such as shade structures or umbrellas the ultraviolet radiation transmission results and calculated protection factor should be used as a guide only as these measurements do not take into account important factors such as the design and size of the shade structure, the distance of the shadecloth from the subjects, the effect of indirect (reflected and diffuse) solar radiation and the physical location of the subjects within the shade structure (e.g. at the edge or at the centre). 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. The report shows the average of the measured values and due to physical differences from place to place in the material there may be variations between the specimens tested and the bulk material. It is a condition 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, 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. Version 1.0-12/02/2013

Technician:

**-** 15/07/2015

Signatory:

man 1

5/07/2015

Alan McLenna

E-mail: upf-testing@arpansa.gov.au Web: http://www.arpansa.gov.au Freecall: 1800 022 333 (a free call from fixed phones in Australia)



## **Australian Radiation Protection and Nuclear Safety Agency**

# **Shadecloth Test Report**

Analysed for: Alnet Pty Ltd

ARPANSA Ref: 10554-19

Client Reference:

**Sample Information** 

Sample Type: Knitted Shadecloth Sample Colour: Pearl Onyx

Analysis Date: 15/07/2015 Instrumentation: Bentham DTMc300F, s/n 14294

**Description:** Pearl Onyx Extrablock HDPE Shadecloth, Fire Retardent

### **Shadecloth Test Results**

### **Transmission Characteristics**

2859

Cover Factor:	$94.7 \pm$	1.3
Designation:	n/a	
Colour code:	n/a	
Shade Factor:	86.4 $\pm$	1.5
% Tav:	$13.6 \pm$	1.5
% UVR:	6.1 ±	1.3
% PAR:	15.4 $\pm$	1.6
% UVR Block:	93.9 $\pm$	1.3

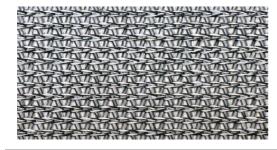
Number of Specimens Analysed: 10

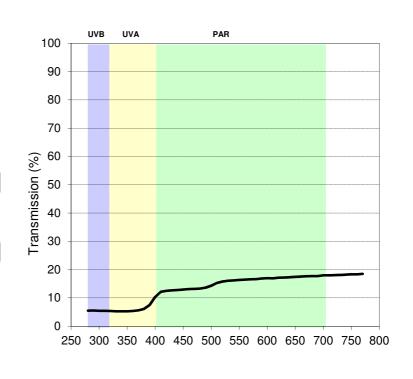
### **Protection Factor Results**

**PF:**  $18.6 \pm 2.3$ 

Calculated PF: 16

### **Material Sample**





Wavelength (nm)

### **Review of Results**

When designing shade structures consider using the most protective shadecloth available. Note that the calculated protection factor is for the material only and does not address the design of the product as it does not account for the effect of indirect UVR when situated at a distance from the persons being protected. NOTE: The following disclaimer must be used when quoting the calculated protection factor (PF) results from this test report: "The calculated protection factor is for the material only and does not account for the effect of indirect UVR when situated at a distance from the persons being protected."

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Technician:

Chris Statham 15/07/2015

Signatory:

15

5/07/2015

Alan McLei



## **Australian Radiation Protection and Nuclear Safety Agency**

# **Shadecloth Test Report**

Analysed for: Alnet Pty Ltd

ARPANSA Ref: 10554-20

Client Reference: 2859

**Sample Information** 

Sample Type: Knitted Shadecloth Sample Colour: Purple

Analysis Date: 15/07/2015 Instrumentation: Bentham DTMc300F, s/n 14294

**Description:** Purple Extrablock HDPE Shadecloth, Fire Retardent

### **Shadecloth Test Results**

### **Transmission Characteristics**

Cover Factor:	$94.7 \pm$	1.3
Designation:	n/a	
Colour code:	n/a	
Shade Factor:	86.4 $\pm$	1.5
% Tav:	13.6 ±	1.5
% UVR:	6.1 ±	1.3
% PAR:	15.4 $\pm$	1.6
% UVR Block:	$93.9 \pm$	1.3

Number of Specimens Analysed: 10

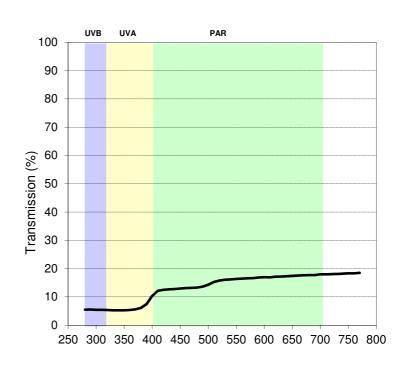
### **Protection Factor Results**

**PF:**  $18.6 \pm 2.3$ 

Calculated PF: 16

### **Material Sample**





Wavelength (nm)

### **Review of Results**

When designing shade structures consider using the most protective shadecloth available. Note that the calculated protection factor is for the material only and does not address the design of the product as it does not account for the effect of indirect UVR when situated at a distance from the persons being protected. NOTE: The following disclaimer must be used when quoting the calculated protection factor (PF) results from this test report: "The calculated protection factor is for the material only and does not account for the effect of indirect UVR when situated at a distance from the persons being protected."

#### **Disclaimer**

This report has been prepared in accordance with standard AS 4174-1994 - Synthetic Shadecloth, Appendix A and Appendix B. The ultraviolet radiation Protection Factor in this report is calculated in accordance with "UVR Protection offered by Shadecloths and Polycarbonates" published in Radiation Protection in Australia 1995, 13 (2) 50-54. When shadecloth is to be used for non-horticultural purposes such as shade structures or umbrellas the ultraviolet radiation transmission results and calculated protection factor should be used as a guide only as these measurements do not take into account important factors such as the design and size of the shade structure, the distance of the shadecloth from the subjects, the effect of indirect (reflected and diffuse) solar radiation and the physical location of the subjects within the shade structure (e.g. at the edge or at the centre). 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. The report shows the average of the measured values and due to physical differences from place to place in the material there may be variations between the specimens tested and the bulk material. 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, 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. Version 1.0-12/02/2013

Technician:

**-** 15/07/2015

Signatory:

15/07/201

Alan McLen

619 Lower Plenty Road E-mail: upf-testing@arpansa.gov.au Web: http://www.arpansa.gov.au YALLAMBIE VIC 3085 Freecall: 1800 022 333 (a free call from fixed phones in Australia)

### **Guide to Interpretation of Shadecloth reports**

At ARPANSA shadecloth testing is carried out in accordance with Australian Standard AS4174-1994 Synthetic Shadecloth. The ultraviolet radiation protection factor is calculated in accordance with "UVR Protection offered by Shadecloths and Polycarbonates" published in Radiation Protection in Australia 1995, 13 (2) 50-54.

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

**Designation:** The designated weight of the shadecloth according to the calculated cover factor as per Table 1 of the shadecloth standard.

**Colour Code:** The colour according to the designated colour code shown in Table 1 of the shadecloth standard shall be knitted, woven or attached to the edge of the shadecloth.

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

%Tav: The average percentage transmission (290 to 770 nm).

**%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.

**Protection Factor (PF):** The protection factor (PF) is calculated by comparing the photo-biologically effective irradiance without and with the test material in place for each sample and then averaged for the number of specimens analysed.

Calculated PF: The mean PF minus the standard deviation.

**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.