

RAINBOW **SHADE**

TECHNICAL SPECIFICATION

DATA SHEET

Z16

THE ULTIMATE SOLAR PROTECTION



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Z16 - THE ULTIMATE SOLAR PROTECTION

As one of Australia's most popular shade fabric brands, Z16 holds an unrivaled reputation for durability, UV-R protection and quality.

Z16 shade fabric offers the ultimate UV-R protection (up to 99%) UV-R Block.

Z16 has impressive UV and shade results and can dramatically reduce the heat, glare and UV radiation of any outdoor area. This allows you to use the outdoors even when the sun is at its most dangerous.

Z16 Shade cloth is suitable for a wide range of shade sail and shade structure installations.



High UV-R Protection

Offering up to 99% UV-R Block Z16 provides the ultimate in solar protection filtering harmful ultraviolet radiation. (AS4174)

Reduced Heat & Glare

A Z16 shade fabric installation will actively reduce heat and glare due to Z16's unique fabric construction.

Hail Protection

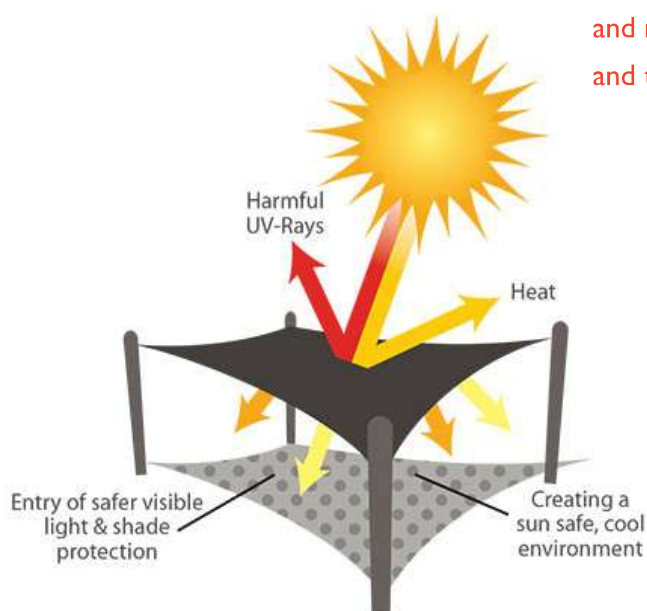
Z16 provides protection against hail and has passed Class IV of the Impact Resistance Test - UL2218.

Fire Rated

Z16 has been vigorously tested to Australian standard 1530.2, 1530.3 and to international standards NFPA & ASTM E84.

Suggested Specification

Shade cloth fabric will be compliant to Australian Standard 4174 and must be **Z16 HDPE knitted shade fabric with monofilament and tape construction for maximum solar protection.**



Z16 is a knitted shade fabric made from high density polyethylene (HDPE) containing Ultra-violet stabilizing additives and durable colorfast pigments. Our state of the art manufacturing process, combined with the highest quality polymers and pigments ensures any shade product made from Z16 fabric will continue to provide outstanding protection and look great for many years.

Rainbow Shade's Z16 shade cloth has been rigorously tested against the sun and elements, which enable us to offer with confidence a **10 year warranty** on the fabric against UV breakdown.

Fire Test Data	Result		Standard
Flammability Index	1	(0-100)	AS1530.2-1993
Heat Factor	1		AS1530.2-1993
Spread Factor	0		AS1530.2-1993
Ignitability Index	13		AS1530.3-1999
Spread of Flame Index	8		AS1530.3-1999
Heat Evolved Index	2		AS1530.3-1999
Smoke Developed Index	5		AS1530.3-1999
NFPA 701	Pass		
ASTM E84 - 16	Classification A		

Technical Properties	Result		Standard
Roll Length 50m	Roll Width 3m	200GSM	
Breaking Force - warp	443	N/50mm	AS 2001.2.3.1-2001
Break Force - weft	902	N/50mm	AS 2001.2.3.1-2001
Elongation at Break - warp	63.5	%	AS 2001.2.3.1-2001
Elongation at Break - weft	36.2	%	AS 2001.2.3.1-2001
Tear Resistance - warp	143	N	AS 2001.2.10-1986
Tear Resistance - weft	184	N	AS 2001.2.10-1986
Bursting Pressure	2500	kPa	AS 2001.2.4-1990
Bursting Force	1352	N	AS 2001.2.19-1998

Solar Protection Data	UV-R Block %	Shade Block %	Solar Protection Data	UV-R Block %	Shade Block %
Black	99%	97%	Mulberry	94%	91%
Rainforest Green	98%	91%	Eucalyptus	93.8%	90.6%
Gumleaf	98%	91%	Sunset Red	93%	77%
Desert Sand	97%	89%	Navy Blue	93%	93%
Silver Grey	97%	93%	Laguna Blue	93%	89%
Red Earth	96.7%	92.2%	Atomic Orange	92.7%	82.5%
Charcoal	96%	96%	Turquoise	92%	84%
Olive	95.1%	89.4%	Zesty Lime	91.7%	83.7%
Chocolate	95%	94%	Electric Purple	90.5%	82.8%
Royal Blue	95%	88%	Rust Gold	88%	87%
Sunflower Yellow	94.7%	79.4%	Terracotta	87%	84%
Cinnamon	94.4%	91.5%	Ice White	83.3%	62.4%

Hail Resistance & Wind Speed Data	Result		Standard	Comment
Hail (Impact Resistance of Prepared Roof Covering Materials)	Class IV	Pass	UL2218	No Failure Observed
Wind Tunnel Test Data (CSIR)				
Local Air Speed	203 KM/H			No Failure Observed
EAS Speed	188 KM/H			No Failure Observed



Cinnamon
UVR 94.4%
SHADE 91.5%



Desert Sand
UVR 97%
SHADE 89%



Silver
UVR 97%
SHADE 93%



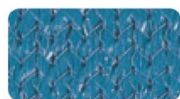
Charcoal
UVR 96%
SHADE 96%



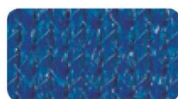
Black
UVR 99%
SHADE 97%



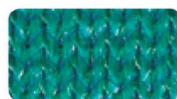
Navy Blue
UVR 93%
SHADE 93%



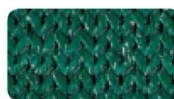
Laguna Blue
UVR 93%
SHADE 89%



Royal Blue
UVR 95%
SHADE 88%



Turquoise
UVR 92%
SHADE 84%



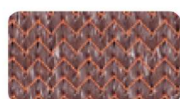
Rainforest
UVR 98%
SHADE 91%



Red Earth
UVR 96.7%
SHADE 92.2%



Terracotta
UVR 87%
SHADE 84%



Rust Gold
UVR 88%
SHADE 87%



Mulberry
UVR 94%
SHADE 91%



Chocolate
UVR 95%
SHADE 94%



Ice White
UVR 83.3%
SHADE 62.4%



Olive
UVR 95.1%
SHADE 89.4%



Gumleaf
UVR 98%
SHADE 91%



Eucalyptus
UVR 93.8%
SHADE 90.6%



Zesty Lime
UVR 91.7%
SHADE 83.7%



Electric Purple
UVR 90.5%
SHADE 82.8%



Atomic Orange
UVR 92.7%
SHADE 82.5%



Sunset Red
UVR 93%
SHADE 77%



Sunflower Yellow
UVR 94.7%
SHADE 79.4%

www.rainbowshade.com.au

It is the customer's responsibility to determine whether this product is suitable for the intended applications and that it complies with the relevant governing bodies requirements. The results included have been independently tested to the above mentioned Australian and International standards. Copies of these reports are available upon request. If you have any questions, please feel free to contact us on 07 55 805 366