



Established 1985

SHADE INFORMATION

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Enjoy Your New Shade Investment

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Your shade cloth will need to be removed for proper cleaning or hurricane safety, [watch our video](#) on how to remove your shade fabric.



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SOUTHERN RECREATION SHADE SERVICES

Permitting can be provided in the state of Florida

State Certified Contractor CBC1252594

Footer preparation-includes all required steel

Permit Inspections

Erection of shade frames

Larger shade frames may require a boom truck which would
be included in the installation charge

Installation of shade cloth-tensioned per factory recommendations

All work performed by fully insured factory certified installers

All site clean up

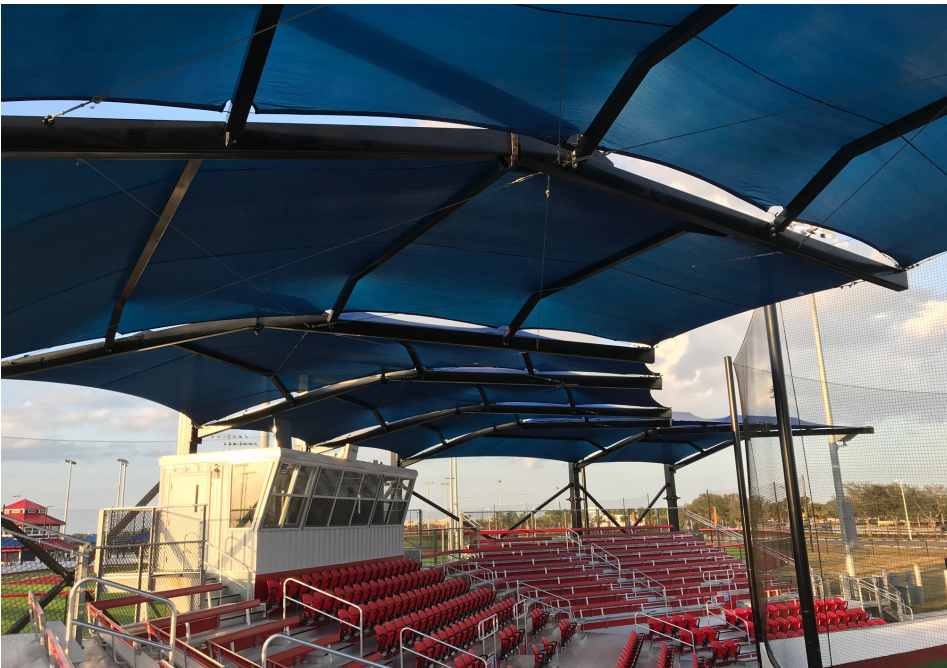
Frames include a Twenty (20) year warranty

Cloth includes a Ten (10) year warranty

Powder Coating includes a Five (5) year warranty

See Warranty info on [page 12](#) for further warranty information

SHADE PORTFOLIO



GENERAL SPECIFICATION INFORMATION

SHADE STRUCTURE MATERIAL SPECIFICATIONS

I. FABRIC SPECIFICATIONS

- A. UV shade fabric is made of UV stabilized cloth manufactured by ALNET, or approved equal.
- B. The high density polyethylene material shall be manufactured with tensioned fabric structures in mind.
- C. The fabric knit is to be made using monofilament and tape filler which has a weight of 9.38 to 10.32 oz. sq. yd. Material to be Rachel-knitted to ensure material will not unravel if cut.
- D. Burst strength of 828 lbf (ASTM 3786).
- E. Cloth meets fire resistance tests as follows:
 - Alnet Extra Block: California State Fire Marshall Reg. #F-93501
 - Others: NFPA 701-99 (Test Method 2), ASTM E-84
- F. Fabric Properties:

Stretch/Stentored

Tear Tests (lbs/ft): WARP 44.8 and WEFT 44

Burst Tests (lbs ft): 828

Fabric Weight (oz/sqFT) Average: 1.02 to 1.07

Fabric Width: 9'-10"

Roll Length: 150'

Roll Size: 63" x 16.5"

Weight: 120 lbs.

Life Expectancy: 10 years

Fading: Minimum fading after 6 years (Note: 3 years for Red and Yellow)

Temperature: -77 degrees

Maximum Temperature: +167 degrees

II. THREAD

- A. Shall be 100% expanded PTFE fiber which carries a 10 year warranty that is high strength and low shrinkage.
- B. Shall have a wide temperature and humidity range.
- C. Abrasion resistant and UV radiation immunity.
- D. Shall be unaffected by non-hydrocarbon based cleaning agents, acid rain, mildew, rot, chlorine, saltwater, and pollution.
- E. Lockstitch thread - 1200 Denier or equal.
- F. Chain stitch thread - 2400 Denier or equal.

GENERAL SPECIFICATION INFORMATION

III. STEEL TUBING

- A. All fabricated steel must be in accordance with approved shop drawings and calculations.
- B. All steel is cleaned, degreased or etched to ensure proper adhesion of powder-coat in accordance with manufacturer's specifications.
- C. All Steel used on this project needs to be new and accompanied by the mill certificates if requested. Structural steel tubing up to 5"-7 Gage shall be galvanized per Allied Steel FLO-COAT specifications. Schedule 40 black pipe fabrications shall be sandblasted and primed as described below.
- D. All non-hollow structural shapes comply with ASTM A-36, unless otherwise noted.
- E. All hollow structural steel shapes shall be cold formed HSS ASTM A-53 grade C, unless otherwise noted.
- F. Plate products shall comply with ASTM A-36.

IV. POWDER COATING & PRIMING

- A. All non-galvanized steel shall be sandblasted and primed prior to powder coating using brown fused aluminum oxide grit and the following primer.
- B. All non-galvanized steel must be coated with rust inhibiting primer prior to applying the powder coat. Primer shall be Marine Grade Cardinal Industrial Finishes Corp. E396 - GR1372 epoxy powder coating semi-gloss smooth zinc rich primer.
- C. Welds shall be primed with rust inhibiting primer prior to applying the powder coat. Primer shall be Marine Grade Cardinal Industrial Finishes Corp E396-GR1372 epoxy powder coating semi-gloss smooth zinc rich primer.
- D. All steel parts shall be coated for rust protection and finished with a minimum 3.5 mil thick UV-inhibited weather resistant powder coating.
- E. Powder used in the powder-coat process shall have the following characteristics:
 - **N.3.1** | Specific Gravity | 1.68+/-0.05
 - **N.3.2** | Theoretical Coverage | 114+/-4 ft. 2/lb/mil
 - **N.3.3** | Mass Loss During Cure | <1%
 - **N.3.4** | Maximum Storage Temperature | 75° F
- F. Powder-coating shall meet the following tests:
 - **ASTM** | Gloss at 60° | 85-95
 - **HOI TM 10.219** | PCI Powder Smoothness | 7
 - **ASTM D2454-91** | Over-Bake Resistance Time | 200%
 - **ASTM D3363-92A** | Pencil Hardness | H-2H
 - **ASTM D2794-93** | Dir/Rev Impact, Gardner | 140/140 in./lbs.
 - **ASTM D3359-95B** | Adhesion, Cross Hatch | 5B PASS
 - **ASTM D522-93A** | Flexibility Mandrel | ¼" Diameter, No Fracture
 - **ASTM B117-95** | Salt Spray | 1,000 Hours
 - **UL DtoV2** | Organic Coating Steel Enclosures, Elect Eq. | Recognized

GENERAL SPECIFICATION INFORMATION

G. Application Criteria:

- **N.5.1** | Electrostatic Spray Cold | Substrate: 0.032 in. CRS
- **N.5.2** | Cure Schedule | 10 Minutes at 400° F
- **N.5.3** | Pretreatment | Bonderite 1000
- **N.5.4** | Film Thickness | 3.5 Mils

IV. WELDING

- A. All shop welds shall be executed in accordance with the latest edition of the American Welding Society Specifications.
- B. Welding procedures shall comply in accordance with the AWS D1.1-AWS Structural Welding Code-Steel.
- C. All welds to be performed by a certified welder. All welds shall be continuous where length is not given, unless otherwise shown or noted on drawings.
- D. All welds shall develop the full strength of the weaker member. All welds shall be made using E70xx.035 wire.
- E. Shop connections shall be welded unless noted otherwise. Field connections shall be indicated on the drawings. Field -welded connections are not acceptable.
- F. All fillet welds shall be a minimum of ¼" unless otherwise noted.
- G. All steel shall be welded shut at terminations to prevent internal leakage.
- H. Internal weld sleeving is not acceptable.
- I. On-site welding of any component is not acceptable.

VI. SEWING

- A. On-site sewing of a fabric will not be accepted.
- B. All corners shall be reinforced with extra non-tear cloth and strap to distribute the load.
- C. The perimeters that contain the cables shall be double lock stitched.

VII. INSTALLATION HARDWARE

- A. Bolt and fastening hardware shall be determined based on calculated engineering loads.
- B. All bolts shall comply with SAE-J429 (Grade 8) or ASTM A325 (Grade BD). All nuts shall comply with ASTM F-594, alloy Group 1 or 2.
- C. Upon request, Stainless Steel hardware shall comply with ASTM A-304.
- D. 1/4" galvanized wire rope shall be 7x19 strand with a breaking strength of 7,000 lbs. for shades generally under 575 sq. ft. unless requested larger by the customer. For shades over 575 sq. ft., cable shall be 5/16" with a breaking strength of 9,800 lbs. Upon request, 1/4" Stainless Steel wire rope shall be 7x19 strand with a breaking strength of 6,400 lbs. 5/16" Stainless Steel wire rope shall be 7/19 strand with a breaking strength of 9,000 lbs.
- E. All fittings required for proper securing of the cable are hot dipped galvanized.

GENERAL SPECIFICATION INFORMATION

VIII. CONCRETE

- A. Concrete work shall be executed in accordance with the latest edition of American Concrete Building Code ACI 318 unless specified by the governing municipality.
- B. Concrete specifications shall comply in accordance with, and detailed as per plans as follows:
 - 1. 28 Days Strength F'_c = 2500 psi
 - 2. Aggregate: HR
 - 3. Slump: 3-5
 - 4. Portland Cement shall conform to C-150
 - 5. Aggregate shall conform to ASTM C-33
- C. All reinforcement shall conform to ASTM A-615 grade 60.
- D. Reinforcing steel shall be detailed, fabricated and placed in accordance with the latest ACI Detailing Manual and manual of Standard Practice
- E. Whenever daily ambient temperatures are below 80 degrees Fahrenheit, the contractor may have mix accelerators and hot water added at the batch plant (See Table 1).
- F. The contractor shall not pour any concrete when daily ambient temperature is below 55° F.

Temperature Range	% Accelerator	Type Accelerator
75-80°	1%	High Early (Non-Calcium)
70-75°	2%	High Early (Non-Calcium)
Below 70°	3%	High Early (Non-Calcium)

IX. FOOTINGS

- A. All anchor bolts set in new concrete shall be ASTM A-307, or ASTM F-1554 if specified by engineer.
- B. All anchor bolts shall be zinc plated unless specified otherwise.
- C. Footing shall be placed in accordance with and conform to engineered specifications and drawings.

SUPERIOR SHADE SPEC PACKAGE

FABRIC SPECIFICATIONS

- Shade fabric is made of UV stabilized cloth manufactured by ALNET or approved equal.
- The high density polyethylene material shall be manufactured with tensioned fabric structures in mind.
- The fabric knit is to be made using monofilament and tape filler which has a weight of 9.38 to 10.32 oz. sq. yd. Material to be Rachel-knitted to ensure material will not unravel if cut.
- Burst strength of 828 lbf (ASTM 3786).
- Cloth meets fire resistance tests as follows:

Alnet Extra Block: California State Fire Marshall Reg. #F-93501

Others: NFPA 701-99 (Test Method 2) and ASTM E-84

FABRIC PROPERTIES

STRETCH	STENTORED
Tear Tests (lbs/ft)	WARP 44.8 WEFT 44
Burst Tests (lbs ft)	828
Fabric Weight (oz/sqFT)	avg 1.02 to 1.07
Fabric Width	9'-10"
Roll Length	150'
Roll Size	63" x 16.5"
Weight	120 lbs.
Life Expectancy	10 years
Fading	Minimum fading after 6 years, 3 years for red and yellow
Temperature	-77 degrees
Maximum Temperature	+167 degrees

Continued on Page 2

- Shade protection and UV screen protection factors are as follows:

SHADE PROTECTION AND UV BLOCK OUT

Color	Shade Cover	UVR Block Out
True Blue	93%	89%
Beige	97%	87%
Forest Green	96%	94%
Sun Blaze	94%	91%
Silver	95%	93%
Black	98%	97%
River Gum Green	95%	92%
Sky Blue	95%	94%
Navy Blue	96%	95%
Turquoise	94%	94%
Yellow	76%	94%
Cream	74%	92%

THREAD

- Shall be 100% expanded PTFE fiber which carries a 10 year warranty that is high strength and low shrinkage.
- Shall have a wide temperature and humidity range.
- Abrasion resistant and UV radiation immunity.
- Shall be unaffected by non-hydrocarbon based cleaning agents, acid rain, mildew, chlorine, saltwater, and pollution.
- Lockstitch thread - 1200 Denier or equal.
- Chain stitch thread - 2400 Denier or equal.

STEEL TUBING

- All fabricated steel must be in accordance with approved shop drawings and calculations.
- All steel is cleaned, degreased or etched to ensure proper adhesion of Superdurable powder coat in accordance with manufacturer's specifications.
- All Steel used on this project needs to be new and accompanied by the mill certificates if requested. Structural steel tubing up to 5"-7 gauge shall be galvanized per Allied Steel FLO-COAT specifications. Schedule 40 black pipe fabrications shall be sand-blasted and primed as described below.
- All non-hollow structural shapes comply with ASTM A-36, unless otherwise noted.
- All hollow structural steel shapes shall be cold formed HSS ASTM A-53 grade C, unless otherwise noted.
- Plate products shall comply with ASTM A-36.

SUPERDURABLE POWDER COATING & PRIMING

- All non-galvanized steel shade to be sand-blasted and primed prior to Superdurable powder coating using reclaimable blast media in a mixture of GL50 & GL80 Steel Grit.
- All non-galvanized steel must be coated with rust inhibiting primer prior to applying the Superdurable powder coat. Primer shall be Marine Grade Cardinal Industrial Finishes Corp. E396-GR1372 epoxy Superdurable powder coating semi-gloss smooth zinc rich primer.

- Welds shall be primed with rust inhibiting primer prior to applying the Superdurable powder coat. Primer shall be Marine Grade Cardinal Industrial Finishes Corp E396-GR1372 epoxy Superdurable powder coating semi-gloss smooth zinc rich primer.
- All steel parts shall be coated for rust protection and finished with a minimum 3.5 mil thick UV-inhibited weather resistant Superdurable powder coating.
- Powder used in the Superdurable powder coat process shall have the following characteristics:

CHARACTERISTICS

N.3.1	Specific Gravity	1.68+/-0.05
N.3.2	Theoretical Coverage	114+/- 4 ft 2/lb/mil
N.3.3	Mass Loss During Cure	<1%
N.3.4	Maximum Storage Temperature	75° F

- Superdurable powder coating shall meet the following tests:

TESTS

ASTM	Gloss at 60 Degree	85-95
HOI TM 10.219	PCI Powder Smoothness	7
ASTM D2454-91	Over-Bake Resistance Time	200%
ASTM D3363-92A	Pencil Hardness	H-2H
ASTM D2794-93	Dir/Rev Impact, Gardner	140/140 in/lbs
ASTM D3359-95B	Adhesion, Cross Hatch	5B Pass
ASTM D522-93A	Flexibility Mandrel	¼" dia. No fracture
ASTM B117-95	Salt Spray	1,000 hours
UL DtoV2	Organic Coating Steel Enclosures, Elect Eq.	Recognized

- Application criteria:

APPLICATION CRITERIA

N.5.1	Electrostatic Spray Cold	Substrate:0.032 in. CRS
N.5.2	Cure Schedule	10 minutes at 400° F
N.5.3	Pretreatment	Bonderite 1000
N.5.4	Film Thickness	3.5 Mils

WELDING

- All shop welds shall be executed in accordance with the latest edition of the American Welding Society Specifications.
- Welding procedures shall comply in accordance with the AWS D1.1-AWS Structural Welding Code-Steel.
- All welds to be performed by a certified welder. All welds shall be continuous where length is not given, unless otherwise shown or noted on drawings.
- All welds shall develop the full strength of the weaker member. All welds shall be made using E70xx.035 wire.
- Shop connections shall be welded unless noted otherwise. Field connections shall be indicated on the drawings. Field welded connections are not acceptable.
- All fillet welds shall be a minimum of ¼" unless otherwise noted.
- All steel shall be welded shut at terminations to prevent internal leakage.

- Internal weld sleeving is not acceptable.
- On-site welding of any component is not acceptable.

SEWING

- On-site sewing of a fabric will not be accepted.
- All corners shall be reinforced with extra non-tear cloth and strap to distribute the load.
- The perimeters that contain the cables shall be double lock stitched.

INSTALLATION HARDWARE

- Bolt and fastening hardware shall be determined based on calculated engineering loads.
- All bolts shall comply with SAE-J429 (Grade 8) or ASTM A325 (Grade BD). All nuts shall comply with ASTM F-594, alloy Group 1 or 2.
- Upon request, Stainless Steel hardware shall comply with ASTM A-304.
- 1/4" galvanized wire rope shall be 7x19 strand with a breaking strength of 7,000 lbs. for shades generally under 575 sq. ft. unless requested larger by the customer. For shades over 575 sq. ft., cable shall be 5/16" with a breaking strength of 9,800 lbs. Upon request, 1/4" Stainless Steel wire rope shall be 7x19 strand with a breaking strength of 6,400 lbs. 5/16" Stainless Steel wire rope shall be 7/19 strand with a breaking strength of 9,000 lbs.
- All fittings required for proper securing of the cable are hot dipped galvanized.

CONCRETE

- Concrete work shall be executed in accordance with the latest edition of American Concrete Building Code ACI 318 unless specified by the governing municipality.
- Concrete specifications shall comply in accordance with, and detailed as per plans as follows:
 1. 28 Days Strength $F'_c = 2500$ psi
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 4. Portland Cement shall conform to C-150
 5. Aggregate shall conform to ASTM C-33
- All reinforcement shall conform to ASTM A-615 grade 60.
- Reinforcing steel shall be detailed, fabricated and placed in accordance with the latest ACI Detailing Manual and manual of Standard Practice.
- Whenever daily ambient temperatures are below 80° Fahrenheit, the contractor may have mix accelerators and hot water added at the batch plant (see table).
- The contractor shall not pour any concrete when daily ambient temperature is below 55° Fahrenheit.

TEMPERATE

Temperature Range	% Accelerator	Type Accelerator
75-80°	1%	High Early (non calcium)
70-75°	2%	High Early (non calcium)
Below 70°	3%	High Early (non calcium)

FOOTINGS

- All anchor bolts set in new concrete shall be ASTM A-307, or ASTM F-1554 if specified by engineer.
- All anchor bolts shall be zinc plated unless specified otherwise.
- Footing shall be placed in accordance with and conform to engineered specifications and drawings.

Commercial 95™



Rev.7 10/08

Product Profile

Shadecloth Range

Product Description

Commercial 95™ is a high quality knitted shade fabric supplied in bulk rolls, designed for tension structures, awnings and shade covers specifically for commercial architectural applications.

Material

Yarn UV stabilised HDPE
Construction Monofilament & tape
Pattern Lock-stitch knitted
Temperature range -22 °F to +167 °F

Features

Strong HDPE fabric won't rot or absorb moisture.
Stentered (heat-set) to reduce shrinkage and for ease of fabrication.
10 year UV degradation warranty on fabric.
Engineered in Australia to meet the harsh climate.

Usage Instructions

Do not use against flames.
Contact with organic solvents, halogens or highly acidic substances may reduce the service life of the fabric and void the warranty.
Biaxial elastic material properties available on request.

Properties

Nominal fabric mass 10 ½ oz/sq. Yd
(ASTM D3776-1985)
Approximate thickness 63 mils

Performance

Tensile Strength - Warp 240 lbs
Elongation at break 142 %
Tensile Strength - Weft 535 lbs
Elongation at break 60 %
(ASTM D5034-1995 – grab test)
Tongue Tear – Warp avg 49 ¾ lbs
Tongue Tear – Weft avg 54 ½ lbs
(ASTM D2261-19996)
Trapezoidal Tear – Warp avg 85 ½ lbs
Trapezoidal Tear – Weft avg 190 ½ lbs
(ASTM D5587-2003)
Bursting Pressure (mean) 508 psi
(ASTM D3786-2001)
Bursting Force (mean) 457 lbf
(ASTM D3787-2001)

Flammability

data available on request

Tested to AS 1530 Part 1 & 2
Tested to NFPA 701-99 Method 2
Tested to ASTM E84-00

Colour	Code	Nom Width	Length	Cover Factor	Shade Factor	Av % Trans	Av. UVR Trans	Av. PAR Trans	% UVR Block	UPF Rating	UPF Mean
Aquatic Blue	444938	9' 10" (folded)	54 ¾ Yd	96.8%	90.2	9.8%	6.4%	11.2%	93.6%	15.0	32.2
Black	444945			98.2%	97.4	2.6%	2.6%	2.7%	97.4%	35.0	59.8
Brunswick Green	444952			96.2%	93.9	6.1%	4.9%	6.3%	95.1%	15.0	32.6
Charcoal	444969			94.7%	94.2	5.8%	5.3%	5.8%	94.7%	11.4	23.2
Cherry Red	444976			90.1%	75.3	24.7%	10.7%	22.4%	89.3%	8.8	12.1
Desert Sand	444983			94.0%	85.0	15.0%	3.6%	16.1%	96.4%	10.0	20.3
Deep Ochre	444990			95.1%	91.3	8.7%	5.6%	8.5%	94.4%	12.1	26.3
Natural	445003			97.9%	74.3	25.7%	3.2%	30.1%	96.8%	35.0	62.4
Navy Blue	445010			96.2%	94.4	5.6%	4.8%	5.7%	95.2%	14.7	33.3
Rivergum Green	445027			94.7%	85.0	15.0%	7.7%	15.6%	92.3%	12.6	20.8
Sky Blue	445034			95.2%	90.4	9.6%	6.2%	9.9%	93.8%	16.0	21.3
Steel Grey	445041			95.6%	88.4	11.6%	7.0%	12.3%	93.0%	13.1	26.1
Terracotta	445058			93.0%	87.4	12.6%	9.0%	12.1%	91.0%	10.1	15.4
Turquoise	445058			94.0%	90.0	10.0%	5.7%	11.7%	94.3%	11.9	18.0
Yellow	445072			98.3%	77.2	22.8%	2.9%	25.0%	97.1%	45.0	71.3

Approx. roll weight: 122 lbs
Approx. roll diameter: ~ 16"
Core diameter: ~ 1 ½ "

Tested according to AS 4174 Synthetic Shadecloth
Av. % Transmis. = Average % Transmission within the 290-770nm spectrum
Av. UVR Transmis. = Average % Transmission within the 290-400nm spectrum
Av. PAR Transmis. = Average % Transmission within the 408-770nm spectrum
UPF (Ultraviolet Protection Factor)
UPF (Rating) = actual rating assigned to material tested, inc standard deviation.
UPF (Mean) = average of UPF values tested, excludes standard deviation.

The above results are typical averages from independent testing and quality assurance testing and are not to be taken as a minimum specification nor as forming any contract between Gale Pacific and another party. Due to continuous product improvement, Product Profiles are subject to alteration without notice.
Notice: As the use and disposal of this product are beyond Gale Pacific's control, regardless of any assistance provided without charge, Gale Pacific assumes no obligation or liability for the suitability of its products in any specific end use application. It is the customer's responsibility to determine whether Gale Pacific's products are appropriate for the specific application and complies with any legal & patent regulations.

FOR MORE INFORMATION – PLEASE CONTACT:

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UAE	Gale Pacific FZE. PO Box 17696, Jebel Ali, Dubai	Phone +971 4 881 7114	Fax +971 4 881 7167
USA	Gale Pacific Inc. PO Box 951509, Lake Mary, Florida, 32795-1509	Phone +1 407 333 1038	Fax +1 407 333 7716

Shade Warranty

GENERAL CONDITIONS

The warranty set forth shall be the purchaser's sole and exclusive warranty. All warranties below are effective from the date of delivery by Superior Shade, its subsidiaries, or agents. Superior Shade reserves the right to repair or replace any item covered by this warranty.

- This warranty will be void if the structures are not paid for in full. The warranty is void if the structures are not installed in strict compliance with the manufacturer specifications.
- Purchaser shall notify Superior Shade or its agent in writing detailing any defect for which a warranty claim is being made.
- Superior Shade shall not in any event be liable for indirect, special, consequential or liquidated damages.
- Superior Shade specifically denies the implied warranties of fitness for a particular purpose and merchantability.
- The warranty is void if any changes, modifications, additions or attachments are made to the structures or fabric without the written consent of the manufacturer.
- No signs, objects, ornaments, fans, lights, fixtures or decorations may be hung from the top part of the structure, unless specifically designed and engineered by the manufacturer. These items may interfere with the fabric causing the warranty to be voided.
- 1 year limited warranty on all moving parts and any item not specifically listed above.

THREAD

Thread shall be 100% expanded PTFE fiber that is high strength and low shrinkage, which carries a 10 year warranty. This warranties that the sewing thread will be free from defects in material and workmanship and will not be damaged by exposure to sunlight, weather and water. All other warranties disclaimed.

FABRIC

Superior Shade fabrics carry a ten-year limited manufacturer's warranty from the date of delivery against failure from significant fading*, deterioration, breakdown, outdoor heat, cold, or discoloration. Should the fabric need to be replaced under the warranty, Superior Shade will manufacture and ship a new fabric at no charge for the first six years, thereafter pro-rated at 18% per annum over the last four years.

**The colors Red and Yellow are warranted against significant fading for only two years.*

If the corners of the fabric are equipped with both holes in the fabric corner PLUS reinforcing straps, BOTH the strap and fabric hole must be placed over each corner hook or the fabric warranty is void.

Fabric curtains, valences or flat vertical panels are not covered under the warranty.

Fabric is not warranted where it is installed on a structure that is not engineered and built by Superior Shade or its agents.

This warranty shall be void if damage to or failure to the shade structure is caused by contact with chemicals, chlorine, bleaching agents, hydrocarbons or hydrocarbon containing solvents, misuse, vandalism or any act of God, including but not limited to wind in excess of the wind limitations set forth below.

All fabric tops are warranted for sustained winds up to 76mph (hurricane force 1) and for gusts of up to 3 seconds duration up to 90mph. Removal of the shade fabric is required if damaging winds are called for. Damage due to snow and/or ice accumulation is not covered by this warranty. Canopies should be removed during the "off season".

These structures have been designed to eliminate any friction between the rafters and the fabric. The warranty will, therefore, be voided if any modification (temporary or permanent) is made to the rafter, cross pieces or ridge beams, or if the fastening apparatus is not secured accordingly.

Superior Shade reserves the right, in cases where certain fabric colors have been discontinued, to offer the customer a choice of available colors to replace the warranted fabric of the discontinued color. The company does not warrant that any particular color will be available for any period of time and reserves the right to discontinue any color for any reason it may determine, without recourse by the owner of the discontinued fabric color.

STEEL STRUCTURE

The structural steel frames are covered for a period of twenty years against failure due to rust-through corrosion under normal environmental conditions. Workmanship is warranted for a period of five years.

Structures are warranted for winds up to 90 mph only if shade canopies have been removed as per requirement set forth above in the fabric paragraph. Removal and re-installation must be performed by a qualified person or authorized dealer following the instructions in APPENDIX A below.

This steel warranty shall be void if damage to the steel frame is caused by the installer or from physical damage, damage by salt spray or sprinkler systems, contact with chemicals, chlorine, pollution, misuse, vandalism, or any act of God.

SUPERDURABLE POWDER COAT FINISH

The limited warranty for powder coating provides for the following after a five year exposure period when applied according to the recommendations listed on the product's technical data sheet and appropriate surface preparation has been utilized.

- The coatings shall retain their original color with a ΔE of < 7.5 units for high chroma colors, (Yellows, Reds, Oranges, Etc.) and a ΔE of < 5.0 units for low chroma colors, when tested in accordance with ASTM D 2244.
- The coating shall retain a minimum of 50% of its original gloss level after washing, when tested in accordance with ASTM D 523.
- The coating shall exhibit chalking no worse than a numerical rating of 6, when evaluated in accordance with ASTM D 659-80.

ACTS OF NATURE

This warranty does not cover natural disasters, such as earthquakes, shifts of terrain, or tornadoes. If the structure is installed in an area exposed to hurricanes, removal of the shade fabric is required when a hurricane warning is issued.

Appendix A: Proper Care, Maintenance, and Safe Removal of the Shade Canopy

AVOID

SNOW, ICE, AND HIGH WINDS: Remove the canopy in winter conditions as ice and snow loads are not covered by the warranty. The same goes for winds in excess of hurricane force 1.

SHARP OBJECTS: Always avoid dragging the fabric across surfaces, etc. Roll or fold the fabric and carry it. Avoid sharp objects, bolts, snags, and other protrusions including mounting hardware.

OBSTRUCTIONS: Keep foliage, such as tree limbs, shrubbery, and bushes, trimmed back and away from fabric at least three to four feet.

SOURCES OF HEAT: Avoid contact with heat sources such as hot lights, torches, and avoid using grills, etc. under the fabric.

CLEANING THE FABRIC

The fabric itself is generally maintenance free with the exception of necessary removal due to weather or seasonal requirements. The fabric does not harbor mildew or mold, but residues such as tree sap, leaves, bird droppings, dust and dirt may need to be

removed. To clean the fabric, use water and mild soap. A soft mop or soft broom may also be used. Cleaners that do not contain hydrocarbons, solvents, bleach or ammonia may be used. Use of solvents, hydrocarbons, bleach, and ammonia type cleaners will void the fabric warranty. A pressure washer may be used if necessary using a wide-spray nozzle.

CABLES AND HARDWARE

It is recommended that the cables be replaced every 3 to 4 years or if corrosion is visible, whichever comes first. The cable ends must be wrapped with tape to secure any wires; thus, preventing the wires from tearing the fabric. Taping must be done when removing old cable as well as when installing new cable. Clamps should be replaced when the cable is replaced. If the cable appears slack on a still day (no wind), immediately have the cable and clamps re-tightened by a qualified person. The cable should not be slack.

GLIDE ELBOW™

Lubricate Glide Elbows™ annually and before operating. A waterproof grease is recommended such as a lithium-based grease or anti-seize thread lubricant.

STORAGE

Fabric must be stored in a clean, dry place free from snags, sharp edges, etcetera. The storage area must be rodent-free. Wrap all hardware fittings with rags or some other protector, as they can damage the fabric.

UNINSTALLING THE SHADE CANOPY

NECESSARY CARE: It is important to take necessary care when handling the fabric during removal and installation to prevent damage to the fabric as well as SAFE control of the fabric in a breeze or wind. The fabric is tough and engineered for use as a shade, but it can tear or cut when or if pulled over a snag or sharp item; it can puncture from bolts or other protruding objects; and it can melt from objects such as like cigarettes, matches, hot torch tips, sparks and the like. In addition, care must be exercised to avoid the fabric hooks after the fabric is unhooked from the elbow corners and sides of the structure where there are intermediate supports. It is best to wrap any connected mounting hardware to prevent it from harming the fabric.

PROPER AND SAFE: Based on the size of the canopy, several persons may be needed to properly and safely handle the fabric during the uninstalling process. You will need several commercial ladders or other means to work safely at heights such as scissor lifts, etc. It is advised that you pad the post side of the ladder and tie the ladder to the post. The pad is to protect the post finish. Also keep in mind that every 100 square feet of fabric (10' X 10') weighs approximately five pounds; a large canopy can get heavy fast. For proper control of the fabric, read below. It is best to remove the fabric on a still day. Do not attempt to remove the canopy in strong or gusty winds.

REMOVAL OF THE CANOPY: Do not attempt to remove the canopy in strong or gusty winds.

STANDARD ELBOWS: For shade structures with Standard Elbows, loosen the turnbuckle several turns in order to put enough slack in the cable to allow the fabric and cable to unhook from all the elbow hooks. Attach 3/8" or larger ropes to each corner of the fabric and cable before unhooking to secure and properly control the fabric from ground level. If uninstalling in breezy conditions, choose the windy side of the fabric and tie these corners to the posts with the ropes with enough slack to allow for unhooking the fabric from the structure. These ropes are to prevent the shade from flying away in the breeze and to help prevent injury to ground personnel. Once the corners have been secured to the posts, unhook the fabric and cables from each corner.

On the side away from the wind, release the corners of the fabric and cable and have a person hold on to each rope. It may help to wrap the rope around a column to help hold it from getting caught in the wind. Fold the fabric back away from the hooks. Now it will be necessary to remove the cable clamps to allow the cable to be free from the structure and the turnbuckle. If the cable ends are frayed, wrap them with tape. It is usually not necessary nor is it recommended that the cable be removed from the canopy. With a person on each rope, starting at the windy side, gently pull the canopy down in between the framework of the structure. The side away from the wind can be guided with the ropes toward the persons pulling the canopy down.

It is important when reinstalling the canopy, that it is put back in its original orientation to the structure. Starting at the turnbuckle corner, the fabric and cable corners should be returned to their original positions.

GLIDE ELBOWS: For shade structures with Glide Elbows, remove the protective covers from the ends of the glide elbows. Then, using the proper wrench, turn the hex nuts on the end of the Glide Elbow to run the glide hooks to their top most position. Do not loosen the cable clamps, leave the cable intact. Attach 3/8" ropes to each corner of the fabric and cable before unhooking to secure and properly control the fabric from ground level. If uninstalling in breezy conditions, choose the windy side of the fabric and tie these corners to the posts with the ropes with enough slack to allow for unhooking the fabric from the structure. These ropes are to prevent the shade from flying away in the wind and to help prevent injury to ground personnel. Once the corners have been secured to the posts, unhook the fabric and cables. On the side away from the wind, release the corners of the fabric and cable and have a person hold on to each rope. Fold the fabric back away from the hooks. It is a good idea to put the Glide Elbow protective covers back in place. With Glide Elbow installations it is not necessary to loosen or remove the cable clamps nor to remove the cable from the canopy. If the cable ends are frayed, wrap them with tape.

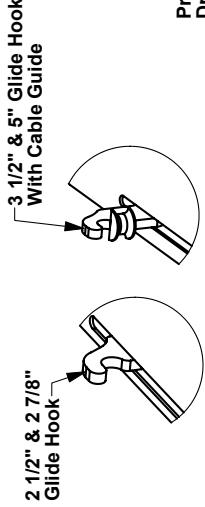
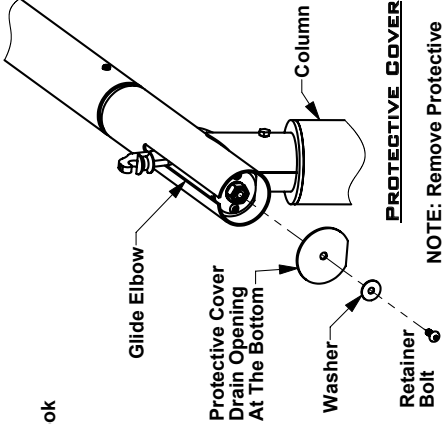
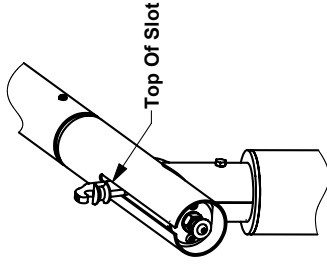
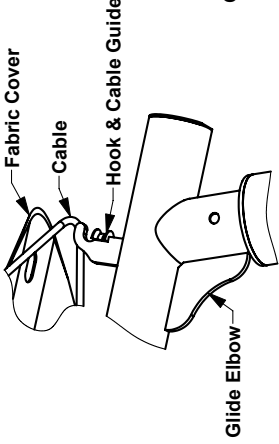
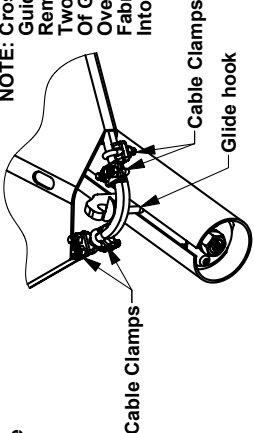
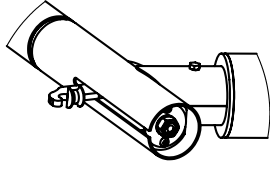
When uninstalling the canopy, mark or identify the corner of origin in such a way that when reinstalling the canopy, it is put back in its original orientation to the structure. The fabric and cable corners should be returned to their original positions when reinstalling the canopy. The cable and fabric should tighten properly when the glide elbows are adjusted down into their tension positions.

SHADE SAILS WITH FANS: For shade sails equipped with fans, loosen the adjustable threaded rod several turns in order to put enough slack in the cable to allow the shackle pin to be removed (do not remove the pins until the fabric corners have been secured with ropes). Attach 3/8" or larger ropes to each corner of the fabric and fan before unhooking to secure and properly control the fabric from ground level. If uninstalling in breezy conditions, choose the windy side of the fabric and tie these corners to the posts with the ropes with enough slack to allow for unhooking the shackle from the structure. These ropes are to prevent the shade from flying away in the breeze and to help prevent injury to ground personnel. Once the corners have been secured to the posts, unhook the shackles and lower the fabric and cable to the ground.

REINSTALLING HINTS

Using the same rope technique, install from the windy side (if it is breezy) making sure to secure these ropes to the posts. Then, throw the remaining corner ropes over the structure and gently pull the canopy into position. The cables and fabric corners can now be fastened on the hooks (and cable guides if so equipped). Next reinstall the clamps if applicable and tightened the cable with the turnbuckle or the Glide Elbows. Do not attempt to install the canopy in strong or gusty winds.

GLIDE ELBOW SPECS

3	2	1	2	1	3			
 <p>2 1/2" & 2 7/8" Glide Hook</p> <p>3 1/2" & 5" Glide Hook With Cable Guide</p>			 <p>Glide Elbow</p> <p>Protective Cover Drain Opening At The Bottom</p> <p>Washer</p> <p>Retainer Bolt</p> <p>Column</p>			 <p>Top Of Slot</p>		
<p>HOOK STYLES</p> <p>NOTE: Larger Framework Will Have Glide Hooks With A Separate Position For The Cable. For Standard Glide Elbows Both The Cable And Fabric Are Positioned Over Hook.</p>			<p>PROTECTIVE COVER</p> <p>NOTE: Remove Protective Cover From End Of Glide Elbows.</p>			<p>GLIDE ADJUSTMENT</p> <p>NOTE: Rotate Hex Nut With Hand Tool To Adjust All Glide Hooks To The Top Of Slots Before Installing Fabric.</p>		
 <p>Fabric Cover</p> <p>Cable</p> <p>Hook & Cable Guide</p> <p>Glide Elbow</p>			 <p>Cable Clamps</p> <p>Cable hook</p> <p>Glide hook</p>					
<p>FABRIC INSTALLATION</p> <p>NOTE: Pull Cable Over Hook Into Cable Guide. Pull Hole In Fabric Corner Over Hook. This Applies To Three Of Four fabric Corners.</p>			<p>SECURE CABLE ENDS</p> <p>NOTE: Cross Cable Ends Within Cable Guide. Pull Cables Tight To Remove Any Slack. Secure With Two Cable Clamps On Either Side Of Guide. Pull Strap On Fabric Corner Over Hook Followed By The Hole In Fabric. Tuck Loose cable Ends Back Into Fabric Hems.</p>			<p>FABRIC TENSION</p> <p>NOTE: Rotate Glide Hex Nuts Equally With Hand Tool To Adjust Cable And Fabric Tension.</p>		

POWDER COAT CHART

Gloss



Matte or Metallic



SHADE FABRIC CHART

