Shade warranty + structure materials

Warranty terms, material performance, and technical requirements

Shade America warrants that its product will be free from defects in materials and workmanship as well as maintain structural integrity for the periods listed below from the date of invoice and once Shade America has been paid in full. This warranty is in effect only if the product has been assembled and installed strictly in accordance with the setup instructions provided by SRP, good construction practices, and has been subjected only to normal use and exposure.

- Lifetime* Warranty on stainless steel hardware
- 20-Year Limited Warranty on steel shade structures
- 10-Year Limited Warranty on shade fabric
- 1-Year Limited Warranty on moving parts and materials not covered above

The Limited Warranty excludes abnormal conditions, contingent liability, cosmetic defects such as scratches, dents, marring, stripping, peeling, or fading; damage due to incorrect installation, vandalism, misuse, accident wear and tear from normal use; exposure to extreme weather, immersion in salt or chlorine water, damage due to sand, salt spray, or other abrasive and corrosive material; unauthorized repair or modification, abnormal use, or lack of maintenance. The warranty does not cover damages due to “acts of God” such as hail, flooding, lightning, tornadoes, sandstorms, shifts of terrain, earthquakes, mudslides, and windstorms.

Shade America does not warrant product for defects caused by erection, harsh site conditions, lack of maintenance, and/or other conditions beyond Shade America’s control. Shade America will not be held responsible for any materials that were not properly stored prior to installation. Shade America reserves the right to void the limited warranty if it not installed per the installation instructions and/or unauthorized modifications.

In the unlikely event of failure, Shade America reserves the right to alter the design, color, or contributing factors to rectify the condition and help prevent any future reoccurrence(s). Shade America has the option to repair or replace any defect in materials.

The warranty is void if any changes, modifications, additions, or attachments are made to the product without the written consent of the manufacturer.

No signs, objects, ornaments, fans, lights, fixtures, or decorations may be hung from the structure unless specifically designed and engineered by the manufacturer or has manufacturers written approval.

Shade America excludes any implied warranty of merchantability, fitness, or purpose, and there are no warranties which extend beyond the description of the face hereof. Under no circumstances will Shade America be responsible for any indirect, special, consequential, incidental, or liquidated damages due to breach of warranty and such damages are specifically excluded from the warranty.

The owner shall notify Shade America with original Sales Order Number issued from Shade America to arrange for an inspection within 30 days after discovery of any defect under this warranty and before any alteration or repair is made or attempted. This Limited Warranty shall be null and void if the owner makes any alterations in design.

This warranty is the only express warranty given by the company. No person has authority to change or add to these obligations and liabilities. The company reserves the right to determine whether the fault is caused by faulty workmanship, material, or the part that is defective.

Shade America will repair or replace at its discretion any defective part/s on an Ex-Works basis only. It is the responsibility of the customer to return the whole unit or the defective part/s at their own cost back to Shade America for inspection along with proof of the date of purchase. Shade America will not be liable for any costs incurred by the customer as a result of replacing the defective part/s, including but not limited to the costs of site visits and the labor costs involved with the removal and reinstallation of the whole unit or the defective part/s. Furthermore, Shade America will not be liable for any claimed compensation while the unit is not working or not present at the site whatsoever. This guarantee does not entitle the customer to a complete new product due to a defective component.

LIMITED WARRANTY: STRUCTURAL STEEL

Shade America offers a 20-year Limited Warranty on structural steel frames for shade canopies against failure due to rust-through corrosion under normal environmental conditions. Should the fabric or parts need to be replaced under the warranty, Shade America will manufacture and ship new replacement parts at no charge for the first ten years, thereafter pro-rated at 10% per annum over the last ten years.

Limited warranties and pricing

Workmanship is warranted for a period of five years. This steel warranty shall be void if damage to the steel 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.

LIMITED WARRANTY: POWDER COAT

Shade America offers a 5-year Limited Warranty for powder coating to the original purchaser. This Limited
Warranty is for factory applied finish only. Damage occurring from shipping, erection, vandalism, accidents, or field modification is not covered in this limited warranty and will require field touch-up immediately and periodically thereafter. The owner must report any defect in powder coat at the time the installation is completed. Not covered by this Limited Warranty are acute angles, welds, and end plates.

The Limited Warranty for powder coating provides the following after a 5-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 numerical rating of 6, when evaluated in accordance with ASTM D 659-80.

SHADE FABRIC

Shade America fabrics carry a 10-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, Shade America 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. Canopy warranty does not extend to cables or moving parts.

*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 Shade America 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.

Fabric tops are warranted and engineered for Ultimate Design wind speed of 110MPH or Nominal Design wind speed of 86 MPH. Removal of the shade fabric is required if damaging winds are called for: IF LIVE LOAD/ROOF SNOW LOAD IS

EXPECTED TO EXCEED 5 PSF AND/OR THE WIND SPEED IS EXPECTED TO EXCEED AN ULTIMATE DESIGN WIND SPEED OF 110 MPH OR A NOMINAL DESIGN WIND SPEED OF 86 MPH. 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.

Shade America 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.

PRICING POLICY

All prices are F.O.B. factor and do not include freight, installation, shipping and handling, surfacing, or applicable taxes. All prices listed were current at the time of printing and in U.S. currency. Prices are subject to change without notice.

Shade Structure Material Specifications

FABRIC SPECIFICATIONS

- Shade fabric is made of UV stabilized cloth manufactured by ALNET or Commercial 95 or approved equal

Stretch	Stentored
Tear Tests (lbs/ft)	WARP 44.8 WEFT 44
Burst Tests (lbs ft)	828 lbf (ASTM 3786)
Fabric Weight (oz/sqFT)	Avg 1.02 to 1.07 oz.
Fabric Width	9' 10"
Roll Length	150'
Roll Size	63" x 16 ½"
Weight	120 lbs.
Life Expectancy	10 Years
Fading	Minimum Fading After 6 years, 3 Years for Red and Yellow
Min. Temperature	-77˚

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

- 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
- Cloth meets fire resistance tests as follows:

  Alnet Extra Block: California State Fire Marshall Reg. #F-094501 and

  Commercial 95: California State Fire Marshall Reg. #F-037801

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

Max. Temperature +167˚

THREAD

- Shall be 100% expanded PTFE fiber 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

Powder coating and welding

- 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 Coat Tests		Results
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” dia. No fracture
ASTM B117-95	Salt Spray	1,000 hours
UL DtOV2	Organic Coating Steel Enclosures, Elect Eq.	Recognized

Powder Coat Process Characteristics

N.3.1	Specific Gravity		N.5.1	Electrostatic Spray Cold	Substrate:0.032 in. CRS
N.3.2	Theoretical Coverage		N.5.2	Cure Schedule	10 minutes at 400˚ F
N.3.3	Mass Loss During Cure		N.5.3	Pretreatment	Bonderite 1000
N.3.4	Maximum Storage Temperature	75˚ F	N.5.4	Film Thickness	3.5 Mils

Application Criteria

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
- 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
2. Aggregate: HR
3. Slump: 3-5
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˚ F, 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˚ F

Concrete Temperate Chart

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

FOOTINGS

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

Appendix

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 2 to 3 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.

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, 40mph or less.

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.

Canopy removal and reinstallation

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.

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. SHADE sail with Turnbuckles: For shade sails equipped with Turnbuckles, 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. Do not attempt to install the canopy in strong or gusty winds.