

Custom Canopies Intl. Inc.

“SAFEST UNDER THE SUN”

STANDARD SHADE SAIL & SHADE STRUCTURE SPECIFICATIONS

Quality assurance

Design criteria conforms to latest version IBC.

All shade structures & shade sails shall be installed and rigged by a trained competent person.

All equipment shall be free of sharp edges and corners, or extremely rough surfaces.

All materials shall be new and conform to all standards as specified.

Wind Design Speed: 60 to 80 miles per hour per local requirement.

Materials

Steel:

All carbon structural steel shall be ASTM A-36 and A500, except steel pipe columns, which shall be ASTM A-53, grade B, unless otherwise noted.

All welds are performed using E70XX electrodes or gas metal arc welding using ER 70S3 wire.

All fillet welds shall be a minimum of three-sixteenths (3/16) inch unless otherwise noted.

Tensioning cable & hardware:

Shall conform to ASTM A-603.

Steel cable is determined based on calculated engineering load. For high and medium loads, 1/4" (minimal) galvanized 7x19 cable is to be used. For heavy loads, 3/8" (minimal) galvanized 7x19 cable is to be used.

Cable connectors and fabric hardware shall be stainless steel or galvanized.

Shade structure fabric shall meet the following list of requirements:

High-density polyethylene to block out 90% of ultra violet rays.

Monofilament and tape construction giving a stable material. Rachell knitted to ensure material will not unravel if cut.

Tensile Strength: ASTM 5035-95

Warp lbf/inch 91

Weft lbf/inch 162

Fabric Mass Minimum: 5.8 oz / sq. yd.

Life expectancy: A minimum of 8 years of continuous exposure.

Fading: minimum fading allowed after 5 years.

Temperature stability: Minimum temp. 13 °

Maximum temp. 176°

Fire rating: NFPA 701

Weatherability: ASTM G53

All corners shall be strengthened with 15 oz non-tear vinyl material.

Thread:

Shall be high density, low shrinkage, abrasion resistant, UV radiation immune, unaffected by cleaning agents, acid rain, mildew, chlorine, saltwater, and industrial pollutants.
Should be warranted for a period of six (6) years.

Coatings

All structural steel and plates shall be rust/corrosion treated by zinc electroplating and shall be finished with a minimum of 2 to 3-mil thick UV-inhibited weather resistant powdercoat.

Non-galvanized steel

Where size of structure or determined loads require larger structural steel members or greater than 7 gauge thickness, carbon steel may be substituted. Cleaning and coating of carbon steel shall conform to the following:

Degrease with mild alkaline cleaner at 140 degrees.
Iron phosphate rinse to create a conversion layer on the steel.
Prebake in oven at 350-400 degrees to burn off additional contaminants.
Powdercoat with a TGIC polyester powder top coat.

Pre -galvanized steel

Steel already has a triple layer of zinc protection with a polymer clear coat, which acts as a primer.

Clean with a mild alkaline solution.
Prebake in oven at 350-400 degrees to burn off additional contaminants.
Powdercoat with a TGIC polyester powder top coat.

Installation:

Install shade structures in a timely manner and coordinate with the work of other trades.

Securely fasten all parts to be attached. Make sure all parts interact freely and smoothly without binding, sticking or excessive clearance.

Install each shade structure and hardware item in compliance with the manufacturers' instructions and recommendations.

Warranty

The structural integrity of the steel shall be warranted for twenty (20) years.

The fabric and sewn composite shade covering shall have a pro-rated warranty of 10 years.

The product, when used in its designed capacity, must be guaranteed for a period of 5 (five) years from original installation against:

The steel frame corroding or deteriorating under normal conditions.

The steel frame from deteriorating from faulty workmanship.

Inappropriate design of supporting structure.

All fabric tops shall be warranted for winds and gusts up to seventy (70) mph. The fabric warranty is void if winds or gusts are in excess of seventy (70) mph unless designed for different wind loads

Excessive loss of color in the fabric under normal exposure conditions, including sunlight, rot and normal atmospheric chemicals that may render it unserviceable.

Any wearing or blowouts due to wind caused by improper installation or design. Under extreme wind conditions that exceed our design capacity, it is advisable to remove the shade fabric from the structure.

The contractor reserves the right to repair or replace any item covered by the warranty.

Shade structures located in areas where they may be subject to damage during construction by handling, cleaning, etc. (i.e. painting, cleaning of concrete block) shall be protected and or removed from the location until the hazardous condition is terminated.

Fabric must be removed if snow fall is expected