







Custom Canopies Intl. Inc. "SAFEST UNDER THE SUN"

POWDERCOAT COLORS



STANDARD SHADE SAIL & SHADE STRUCTURE SPECIFICATIONS

Quality Assurance

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.

The steel frame and concrete foundations for the shade structures or shade sails shall be designed by an engineer licensed in the state of installation.

The steel frames and related concrete foundations for the shade structure to be designed in conformance with the latest version IBC or per local requirement.

Wind Design Speed: 80 to 130 miles per hour or per

local requirement.

Basic live load: 5 psf **Exposure:** C

Coatings

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.
- Min. of 2.5 millimeters thick.

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.
- Min. of 2.5 millimeters thick.

Materials

Steel:

- All carbon structural steel shall be ASTM A-36, 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 threesixteenths (3/16) inch unless otherwise noted.

Tensioning cable & hardware:

- Shall conform to FED. Spec. RR-W-410
- Steel cable is determined based on calculated engineering load. For high and medium loads, ¼" (minimal) galvanized 7x19 cable is to be used. For heavy loads, 5/16 - 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.

Strip tensile Strength:

Warp lb/inch 278 lbs Per ASTM D5034 Weft lb/inch 340 lbs Per ASTM D5034

Fabric Mass Minimum: 9.6 oz / sq. yd. **Fading:** Minimum fading

allowed after 5 years.

Temperature stability: Minimum temp. -13 ° F

Maximum temp. 176° F

Fire rating: CAFM Title 19 CFSM,

Section 1237 NFPA-701 #2

Weatherability: ASTM G53

All corners shall be strengthened with 13-16 oz

non-tear vinyl material.

Thread:

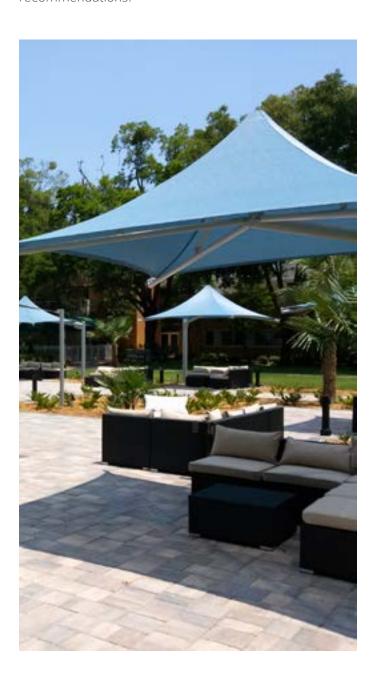
- Gortex Tenara thread
- Shall be high density, low shrinkage, abrasion resistant, UV radiation immune, unaffected by cleaning agents, acid rain, mildew, chlorine, saltwater, and industrial pollutants.
- Should be warranted for a period of ten (10) years.

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 limited warranty for 10 years.

The product, when used in its designed capacity, must be guaranteed for a period of 10 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 engineering requirement. The fabric warranty is void if winds or gusts are in excess of engineering.
- 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.
- Structures are not warranted for damages caused by snowfall, cyclones, typhoons, or other acts of God. For canopies not engineered for snow loads, the fabric must be removed during months when snow or heavy wind and storms are expected.

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.

Maintenance:

Canopies and shade sails must be inspected and maintenance must be done at least once a year. Refer to the maintenance book supplied.