

SPECIFICATIONS

Part 2—PRODUCTS

(For Part 1 and Part 3, see General Specifications.)

2.01 Manufacturer

- A. Shall furnish all shades, electrical control components, and accessories for complete installation and single source responsibility.

Castec, Inc.
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2.02 Product

- A. **Sunstar Roman Shade:** Provides the soft look of a Roman shade, and incorporates a cord & pulley, a ball chain lifting system, or a motorized lifting system. Available in a variety of solar shading fabrics, Roman shades are an alternative to roll shades, providing a cascade appearance. Operation includes manual or motorized controls.

2.03 Materials

- A. **Shade Fabric:** Shall be selected from a large choice of vinyl-coated fiberglass and vinyl-coated polyester yarns woven into various configurations and colors. Shading fabrics shall be either .020" diameter 1000-denier polyester core PVC jacketed yarn or .016" diameter 500-denier PVC-coated fiberglass yarn. Woven yarn will be interlocking and heat treated so that all materials are securely bonded. The woven fabrics are made by coating a high strength polyester or fiberglass yarn with a proprietary vinyl compound that employs performance additives. This vinyl compound is specially formulated to resist fading, fire, mildew, soiling, and bacteria.

1. **Vinyl-Coated Polyester Fabrics** are available in the weaves listed below.

- a. **Sheerweave 4000, OF 5%**
- b. **Sheerweave 4100, OF 10%**
- c. **Sheerweave 4400, OF 3%**
- d. **Sheerweave 4800, OF 1%**

All vinyl-coated polyester fabrics are available in various colors, and in widths up to 96" .

2. **Vinyl-Coated Fiberglass Fabrics** are available in the weaves listed below.

- a. **Sheerweave 2000, OF 5%**
- b. **Sheerweave 2100, OF 10%**
- c. **Sheerweave 2390, OF 5%**
- d. **Sheerweave 2360, OF 10%**
- e. **Sheerweave 1000, OF 25%**
- f. **M-Screen, OF 3% and 5%**
- g. **E-Screen 4100, OF 5%**
- h. **E-Screen 4110, OF 10%**
- i. **T-Screen 5103, OF 3%**
- j. **T-Screen 5100, OF 5%**
- k. **T-Screen 5110, OF 10%**
- l. **Verso Veil, OF 1%**
- m. **Basketweave 100, OF 13%**
- n. **Hexcel XL2 Satin Weave, OF 3%, 5%, and 10%**
- o. **Hexcel XL-Screen, OF 5%.**

All vinyl-coated fiberglass fabrics are available in various colors. Maximum widths range from 72" to 98".

3. **Combination Fabric: Sheerweave 3000, OF 14%** Made of vinyl-coated fiberglass in the warp for dimensional stability and vinyl jacketed polyester in the fill for shading characteristics and color variety. It has a vertical ribbed pattern, and is available in numerous colors and designs. Maximum width 96".

4. **Blackout/Darkroom Fabric:** Shall be totally opaque. Fabric must be made of first quality materials with no pin holes, breaks, or cracks. Must be washable and colorfast. The following Blackout/Darkroom fabrics are available:

- a. **Flocke, OF 0%:** 48% fiberglass with 52% acrylic flocked backing. Available in widths up to 78".
- b. **Hexcel 1260, OF 0%:** Made from fiberglass coated with acrylic. Available in widths up to 71".
- c. **Butler Darkroom 100, OF 0%:** In 12 or 14 oz. 1 ply fiberglass, 3 plies plasticized PVC. Available in widths up to 72".

B. Headrails

1. **Cleat Headrail:** Shall be ¾" x 1½" clear pine wood and shall be completely wrapped with one turn of fabric attached with staples.

2. **Ball Chain Headrail:** Shall be ¾" x 2½" or ¾" x 3½" clear pine wood completely wrapped with one turn of fabric attached with staples. Final size is dependent on shade size and fabric weight.
3. **Motorized Headrail:** Shall be ¾" x 2½" or ¾" x 3½" clear pine wood completely wrapped with one turn of fabric attached with staples. Final size is dependent on shade size and fabric weight.

2.04 Components

A. Manually Operated Roman Shades: Shall be either a Cord & Pulley or Clutch & Chain.

1. **Cord & Pulley Operated:** Cords shall be heat set nylon and shall pass through ⅜" brass, black, or white metal rings individually attached to batten pockets. Cords route through ball bearing pulleys to pull location. Cord ends are fastened to a plastic cord tassel with a crimped metal lug.
 2. **Clutch & Chain Operated:** Chain operated clutch mechanism shall be a bead chain operated roller tube system utilizing a bi-directional clutch designed to allow an infinite number of stopping positions with zero slippage. The clutch shall be made of high strength fiberglass reinforced polyester and high carbon steel, shall never require any adjustment, and may be mounted on either side of shade. The control loop shall be metal #10 bead chain (black oxide or nickel plated steel, or stainless steel) or plastic bead chain (woven polyester cord with molded acetal beads, vanilla or dark bronze). Clutch & Chain system shall be capable of lifting up to 15 lbs without the use of an internal spring assist, and up to 28 lbs when used with internal spring assists.
- B. Motorized Operation:** Operates with fingertip control, or automated controls assuring that shades will be deployed when necessary.
1. **Motors:** Shall be asynchronous capacitors, start and run, single phase type, operating on 120V-60HZ. They shall have planetary type gears, solenoid activated disc brakes, and built-in limit switch units. Each motor shall be thermally protected, tubular in shape, and totally enclosed within the roller tube. Motors shall be UL-recognized and CSA-certified for safe operation. Most motors operate at either 38 RPM or 64 RPM.
 2. **Drive Tube:** Shall be 6063-T5 extruded aluminum with .060" wall thicknesses in either 1½" or 2" diameter depending upon shade height and weight requirements. Finish shall be clear or dark bronze anodized or white powdercoat.
 3. **Endcaps:** Shall be molded plastic with 0.4" drive shaft to engage in compatible mounting brackets.

4. **Mounting Brackets:** Shall be commercial quality black zinc plated, heavy duty steel, compatible with both motor and tube and properly sized for the required application. Intermediate support brackets shall be installed at intervals not greater than 144".
 5. **Controls:** Shall be controlled individually or as groups from wall switches, key switches, remote controls, or may be automated from sun sensors and timers as specified.
- C. Fabric Panels:** Shall be affixed with staples to waterfall off the front of a fabric-wrapped headrail. Rear-facing horizontal batten pockets shall be sewn 8¾" apart to create a flat-faced Roman shade. Battens, anodized aircraft aluminum rod of no less than ⅜" O.D., shall be fully enclosed in batten pockets offering structural support for fabric panel. Metal cord rings shall be attached to each batten pocket, and nylon cords tied and crimped to the lower rings. Washers shall be installed to prevent the crimped connections from passing through the upper rings. The cords shall pass through the cord rings from bottom to top and route to the lifting system.
- D. Hem Bar:** Shall be constructed of 6063-T5 extruded aluminum alloy with continuous spline channel at top for fabric attachment. Finish shall be dark bronze or clear anodized, or powder coated white. Hem bars shall have injection molded end caps at each end to eliminate contact of aluminum rail with window sill and jambs.
- E. Headrail Mounting Bracket:** Shall be commercial quality L-shaped angle iron for wall mounts or pre-drilled sleeved screw channels for ceiling mounts.