

**SPECIFICATIONS**

**PART 2—PRODUCTS**

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

**2.01 Manufacturer**

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

**Castec, Inc.**  
**7531 Coldwater Canyon Avenue**  
**North Hollywood, CA 91605**  
**(800) 828-2500**

**2.02 Product**

**A. Castec Motorized Rollstar Shades:**

Electronically controlled top quality roll shades. Operation includes stop positions and a wide range of motorization options including group, master, and remote switching. Solar shades improve comfort, protect furnishings, and conserve energy by filtering excessive heat and glare while preserving the view. Blackout shades are a necessity in any conference, medical/laser, photographic, or audio/visual application. Castec Rollstar shades are very useful when a clean environment is mandatory, such as in laboratories or hospitals; PVC-coated fabrics are bacteria-resistant and mildew-resistant.

**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".

**2.04 Operating System**

**A. Motorized Operation**

- 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. Motorized Roller Tube:** Shall be of sufficient diameter, based on a width and height scale, to properly lift the fabric without sagging. All tubes shall be of extruded aluminum .063" or larger depending on the width of the shade. All will have a double-sided adhesive strip applied for exact and firm mounting of the fabric. A minimum of one turn of fabric will be placed on the roller before the working section of fabric starts. This will protect the fabric attachment and smooth out the starting seam.
  - a. Anti-Deflection Mechanism (ADM):** All shades exceeding width dimension tolerances shall have an ADM attached to ensure that the minimal deflection is met. Castec can provide motorized shades up to 28 feet in width and 50 feet in height.
- 3. Motorized Idler End Cap:** Shall consist of an injection molded polymer plug with a steel shaft that will allow easy but positive locking of roller tube into idler end bracket.
- 4. Motorized Mounting Brackets:** Brackets for motor end, idler end, and center supports are galvanized steel and are universally applicable for inside, outside, ceiling, or recessed mount.
- 5. Standard Hem Bar:** Shall be a 1" wide by .1875" thick extruded aluminum bar pocketed in a thermally sealed hem across the bottom of the shading fabric. A sealed hem bar (pocket ends) is also available.

**2.05 Optional Motorized Rollstar Accessories**

- A. Snap-On Fascia Mounting Brackets:** Shall support both the roller tube and the fascia panel. They must be capable of mounting inside, outside, or to the ceiling, with the motor on either the right or left side of the roller. All fascia brackets will be made of .060" steel. Fascia brackets for 3" fascias shall be painted with a high quality finish to match the fascia panel. Fascia brackets for 4" fascias have a clear zinc finish— a molded polymer end cap is provided to cover the bracket.
- B. Fascia Panel:** Shall be installed to completely conceal the roller tube and mounting hardware, providing a clean, finished look. Fascia shall hook onto the top of the bracket and snap in place, remaining firmly attached. Fascia panels 4" high shall be made of .075" extruded aluminum and shall be painted with a high quality baked enamel finish.

- C. Top/Back Cover:** Shall be .085" extruded aluminum with a baked enamel finish and shall fit over fascia brackets and completely cover the top and back of the roll shade.
- D. Side Closure Channels:** Shall be one piece 1" by 1½", .062" extruded aluminum with "T" slots to receive wool pile light seal on both leading edges. A two-piece, 1" by 2" extruded aluminum side closure is available for wider openings.
- E. Exposed Hem Bar:** Shall be extruded aluminum containing a spline groove at the top to receive and secure fabric, and a central cavity for a weight bar if required. Ends caps will be used to cover the ends.
- F. Sill Closure Channel:** Shall be 1" x 1½" extruded aluminum to provide complete light seal at the sill of the window.
- G. 4040 Shade Cassette:** Shall be made of an extruded aluminum available in a variety of stock colors. Sizes to be 4" x 4" or 4" x 4½" with a designed groove to accept brackets that are factory-installed within the cassette. Cassette can be snapped into accepting brackets, which can be pre-installed. Cassette will have removable bottom closure to provide easy access to shade mechanism. Bottom closure will also hide shade roller mechanism. Optional end caps are available to match color of cassette extrusion.
- H. 5050 Headbox:** Shall be a one-piece 4¾" wide by 5" deep, .120" extruded aluminum U-shaped enclosure with a 2⅞" wide access closure for use when the shade is to be recessed into the ceiling or completely concealed. Available in white enameled finish and custom colors. Custom shade pocket sizes available upon request.
- I. Closure Hanger:** Closure hanger and closure, both of .062" extruded aluminum, shall be used in recessed applications where aluminum shade pocket is not necessary. Available in white enameled finish and custom colors.
- J. Intermediate Brackets or Couplers:** Available for all motorized shades to allow a single motor to lift multiple shade bands. Flexible intermediate brackets allow one motor to operate multiple shade bands at angles up to 45 degrees to each other.

**2.06 Colors and Finishes:**

Aluminum extrusions are of 6063-T5 alloy available in dark bronze, clear anodized, or white enameled Polycron III, or equivalent Duracron finish. Custom colors are also available.

**2.07 Motorized Control Options**

- A. Individual or Group switching:** Multiple and remote switching available.



- B. Group Control Systems:** For operating any number of motors from one or more switches or from a remote control. Can be configured to control entire elevations.
- C. Available Switches:** Rocker, toggle, key, or decorator.
- D. Other Accessories:** Infrared and radio remote controllers, 7-day timers, and sun sensors.
- E. Integrated System Operator:** Capable of integrating with complete building automation systems.