

## 1 General

### 1.1 SUBMITTALS

- .1 Submit in accordance with Section 01 10 01 - General Requirements.
- .2 Shop drawings:
  - .1 Clearly show components, finishes and perimeter construction conditions, installation, controls and applicable dimensions.
  - .2 Provide schedule indicating shade size and locations.
- .3 Samples:
  - .1 Submit duplicate (one left hand; one right hand) 610 mm wide samples of each type of roller shade mechanism (cassette and open roll type).
  - .2 Submit duplicate 200 mm x 200 mm size sample of each colour and texture of fabric/shade cloth.
- .4 Maintenance instructions:
  - .1 Submit operating and maintenance instructions, including name and telephone number of local service company.

### 1.2 SUSTAINABLE DESIGN SUBMITTALS

- .1 Construction waste management plan.
  - .1 A Construction Waste Management Plan is in place to divert waste material from landfill. Wherever practical, send waste material for reuse or recycling, and generally document this for the contractor's waste management final report.
- .2 Recycled Content.
  - .1 Refer to Section 01 47 15 - Sustainable Requirements for "List of Products Requiring Recycled Content".
  - .2 If products within this section are indicated on the "List of Products Requiring Recycled Content", only products with recycled content will be acceptable.
  - .3 For products not identified on list, source products with highest recycled content available when practical.
  - .4 Include following information with product data submission.
    - .1 Percentage of pre-consumer and post-consumer recycled content for each product.
- .3 Regional Materials.
  - .1 Refer to Section 01 47 15 - Sustainable Requirements for "List of Products Required to be Locally Sourced".
  - .2 If products within this section are indicated on the "List of Products Required to be Locally Sourced", include following information with Product Data submission:
    - .1 Extraction/Manufacturing location(s): Indicate location of extraction site or manufacturing plant, and indicate distance between extraction site or manufacturing plant and Project site.
- .4 Adhesives and Sealants.
  - .1 Include following information with Product Data submission for materials specified under this section:
    - .1 Submit manufacturer's certification indicating VOC limits of Products used onsite and within the building envelope. Product shall comply with California's SCAQMD #1168.

- .5 If requesting substitute product, ensure proposed substitution achieves above stated goals.

### 1.3 MAX. VOC CONTENT FOR SOLVENT CLEANING ACTIVITIES

- .1 Following are some of the Maximum allowed VOC Content for following activities, as per SCAQMD Rule 1171-9 (refer to SCAQMD manual for complete list and updates):
  - .1 Product cleaning during onsite surface preparation for coatings or adhesives application, and repair and maintenance cleaning:
    - .1 General maximum VOC 25g/L.
    - .2 Electrical apparatus components and electronic components.
    - .3 Cleaning of coatings or adhesives application equipment max. VOC 25g/L.
  - .2 Refer to SCAQMD for additional information and clarification and complete list of applications.
  - .3 Any discrepancies are to be approved by Departmental Representative. Obtain written approval prior to use on site.

### 1.4 DELIVERY AND STORAGE

- .1 Schedule delivery of products after walls and ceilings are completed and painted.
- .2 Deliver materials in original projective wrappings or containers, with manufacturer's labels and seals intact.
- .3 Handle and store materials according to manufacturer's recommendations, protecting material and finishes from damages, marring of finishes and soiling.

### 1.5 JOB CONDITIONS

- .1 Examine site conditions and surfaces for defects of work prepared by other trades.
- .2 Verify that blocking and framing necessary to carry shade and hardware is installed and secure.
- .3 Report to Departmental Representative, in writing, defects of work which may adversely affect the quality of workmanship of this section.
- .4 Take accurate measurements at site before fabrication. Check layout of glazing framing sections, spans, and loading capabilities.

## 2 Products

### 2.1 ROLLER SHADES

- .1 Operation: Manual, by means of stainless steel beaded chain; shade start and stop at any position.
- .2 Shade mechanism:
  - .1 Cassette:
    - .1 Construction: extruded aluminum; complete with mounting brackets as necessary for ceiling mount.
    - .2 Finish: clear anodized.
  - .2 Open roll: provide ceiling mount brackets to suit.
- .3 Tube and shade attachment:
  - .1 Tube: Extruded aluminum, 6063-T5 alloy; of diameter required to support shade fabric without excessive deflection.

- .2 Shade attachment: Groove tube to accept fabric attachment spline. Adhesive tape or rivet attachment is not acceptable.
- .4 Bottom bar: extruded aluminum bottom bar, appropriate weight for shade to hang flat, concealed within hem, 38 mm high x 10 mm deep, with sealed pockets to prevent unauthorized removal.
- .5 Fabric
  - .1 Light filtering fabric:
    - .1 Openness factor: 3%.
    - .2 Construction: PVC coated glass fibre cloth, flame-retardant, fungal resistant, GreenGuard certified. Composition: 34% to 36% fiberglass, 66% to 64% vinyl.
    - .3 Fabric weight: minimum 475 g/m<sup>2</sup>.
    - .4 Breaking strength: minimum 1.07 kN (108 kg force) in either direction
    - .5 Colour: bi-coloured; white surface to exterior; coloured surface facing interior as selected by Departmental Representative.
    - .6 Weave pattern: as selected by Departmental Representative.
  - .2 Black-out fabric:
    - .1 Openness factor: 100% opaque.
    - .2 Construction: 4-ply laminated (3 ply PVC, 1 ply glass fibre cloth; flame-retardant, fungal resistant.
    - .3 Fabric weight: minimum 424 g/m<sup>2</sup>.
    - .4 Breaking strength:
      - .1 Warp: 0.45 kN (45.4 kg force).
      - .2 Weft: 0.34 kN (34.9 kg force).
    - .5 Colour: bi-coloured; white surface to exterior; coloured surface facing interior.

## 2.2 FABRICATION

- .1 Manufacture and assemble system components allowing for custom installation techniques to suit project requirements.
- .2 Finished assemblies shall be square, true to size and free from distortion, twist and other defects that could affect strength, operation or appearance. Factory applied finishes shall be uniform, smooth and without blemishes.

## 3 Execution

### 3.1 INSTALLATION

- .1 Install in accordance with manufacturer's installation instructions using skilled tradesmen.
- .2 Install square, plumb, level, true to plane, and securely anchor to building construction.
- .3 Maintain uniform clearances, accurate alignments and parallel with window plane to provide smooth operation without binding.
- .4 Install support anchors into framing members or solid blocking. Installation into only gypsum board is not acceptable.

### 3.2 ADJUSTING AND CLEANING

- .1 Adjust shades and operating components as required to provide smooth and trouble-free operation without binding.

- .2 Adjust to hang without buckling or distortion.
- .3 Clean shades and exposed components.
- .4 Replace work which cannot be satisfactorily repaired, adjusted or cleaned.

### 3.3 SCHEDULE

- .1 Provide roller shades with both light filtering and black-out fabric at each window location.
- .2 Cassette:
  - .1 Fabric:
    - .1 Room 104: light filtering fabric.
    - .2 Elsewhere: blackout fabric.
- .3 Open roll shade:
  - .1 Fabric:
    - .1 Room 104: Blackout fabric.
    - .2 Elsewhere: light filtering fabric.
- .4 Shade widths:
  - .1 Shades to be full width across windows; one-piece where possible.
  - .2 Where window width exceeds maximum available shade width, use centre of window mullion as joint between adjacent shades.

END OF SECTION