

**SECTION 12 24 00
WINDOW SHADES**

PART 1 - GENERAL**1.1 DESCRIPTION**

Cloth shades, vertical blinds and venetian blinds are specified in this section. Window shades shall be furnished complete, including brackets, fittings and hardware.

1.2 RELATED WORK

A. Color of shade cloth and color see drawings.

1.3 QUALITY CONTROL

Manufacturer's Qualification: Venetian blind and vertical blind manufacturer shall provide evidence that the manufacture of blinds are a major product, and that the blinds have performed satisfactorily on similar installations.

1.4 SUBMITTALS

A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.

B. Samples:

1. Shade cloth, each type, 600 mm (24 inch) square, including cord and ring, showing color, finish and texture.
2. Vertical blind slats, 300 mm (12 inches) long, including chain and supporting channels, showing color and finish.
3. Venetian blind slats, 300 mm (12 inches) long, including cord and tape, showing color and finish.

C. Manufacturer's literature and data; showing details of construction and hardware for:

Cloth and window shades

1.5 APPLICABLE PUBLICATIONS

A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced to in the text by the basic designation only.

B. Federal Specifications (Fed. Spec.):

AA-V-00200B.....Venetian Blinds, Shade, Roller, Window, Roller,
Slat, Cord, and Accessories

C. American Society for Testing and Materials (ASTM):

A167-99(R2009).....Stainless and heat-Resisting Chromium-Nickel
Steel Plate, Sheet and Strip

B221/B221M-08.....Aluminum-Alloy Extruded Bars, Rods, Wire,
Shapes, and Tubes

D635-10.....Rate of Burning and/or Extent and Time of
Burning of Self-Supporting Plastics in a
Horizontal Position

D648-07.....Deflection Temperature of Plastics Under
Flexural Load in the Edgewise Position

D1784-08.....Rigid Poly (Vinyl Chloride) (PVC) Compounds and
Chlorinated Poly (Vinyl Chloride) (CPVC)
Compounds

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Shade Cloth: opaque "black- out".
- B. Staples (For Cloth Window Shades): Nonferrous metal or zinc-coated steel.
- C. Stainless Steel: ASTM A167
- D. Extruded Aluminum: ASTM B221/B221M.

2.2 FASTENINGS

Zinc-coated or cadmium plated metal, aluminum or stainless steel fastenings of proper length and type. Except as otherwise specified, fastenings for use with various structural materials shall be as follows:

Type of Fastening	Structural Material
Wood screw	Wood
Tap screw	Metal
Case-hardened, self-tapping screw	Sheet Metal
Screw or bolt in expansion shields	Solid masonry
Toggle bolts	Hollow blocks, wallboard and plaster

2.3 FABRICATION

- A. Fabricate cloth shades to fit measurements of finished openings obtained at site.

B. Cloth Window Shades: Rolling type, constructed of shade cloth mounted on rollers. Shade cloth shall have plain sides, and with hem at bottom to accommodate wood slat. Separate shades are required for each individual sash within opening. Length of shades shall exceed height of window approximately 300 mm (12 inches) measured from head to sill, in addition to material required to make-up hem:

1. Provide rollers with spindles, nylon bearings, tempered steel springs, and all other related accessories required for positive action. Provide rollers of diameter recommended by shade manufacturer. Staple shade cloth to wood rollers to prevent wrinkling or folding, and on line parallel to axis of rollers so that shade will hang plumb. Space staples not over 90 mm (3-1/2 inches) on centers. Use of tacks is prohibited.
2. Wood slats shall be smooth, tapered, and inserted in the bottom hem of the shade cloth.
3. Eyelets shall have clear openings large enough to accommodate cords. Edges of eyelets shall not cut into cloth when set.
4. Cords shall be of sufficient length to permit shades to be drawn to bottom of opening with ends looped and held with cord rings. Attach cords to hems through metal eyelets in center of slats in bottom hems.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Cloth Window Shades: Mount window shades on end of face brackets, set on metal gussets, or casing of windows as required. Provide extension face brackets where necessary at mullions.
1. Locate rollers in level position as high as practicable at heads of windows to prevent infiltration of light over rollers.
 2. Where extension brackets are necessary, on mullions or elsewhere, for alignment of shades, provide metal lugs, and rigidly anchor lugs and brackets.
 3. Place brackets and rollers so that shades will not interfere with window and screen hardware.
 5. Mount shades at detention, or protection screens on head rail (room side) of hinged frame, with face brackets located approximately 38 mm (1-1/2 inches) from outside edges.
 6. Shade installation methods not specifically described, are subject to approval of Architect.

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