

Part I General**I.1 PERFORMANCE REQUIREMENTS**

- .1 Installed roller shade systems to be free from sagging, rippling, curling, cupping, twisting, and telescoping.
- .2 Window coverings required to be consistent with existing building standards. Confirm product details and selections with Departmental Representative before beginning fabrication.

I.2 SUBMITTALS

- .1 Submit submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
 - .1 Submit manufacturer's printed product literature and data sheets for roller shades. Include product characteristics, performance criteria, physical size, finish, and limitations.
- .3 Shop Drawings:
 - .1 Indicate dimensions in relation to window jambs, operator details, top rail, conditions between adjacent blinds, corner conditions, head anchorage details, hardware and accessories details.
- .4 Samples:
 - .1 Submit duplicate samples of manufacturer's standard colours and textures for confirmation by Departmental Representative.
 - .1 Submit fascia samples, minimum 150 mm long.
 - .2 Submit samples of shade and blackout fabrics, minimum size 150 x 150 mm.

I.3 DELIVERY, STORAGE, AND HANDLING

- .1 Deliver, store, and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .2 Deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
 - .1 Store materials off ground in dry location, in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
 - .2 Store and protect roller shades from nicks, scratches, and blemishes.
 - .3 Replace defective or damaged materials with new.

Part 2 Products**2.1 MATERIALS AND FABRICATION**

- .1 Heavy-duty manual chain-operated horizontal roller shade systems.
 - .1 Roller tube: Extruded aluminum with internal ribs, alloy 6063-T5 or 6063-T6, diameter sufficient to bear weight of shade fabric without deflection.
 - .1 Idler end cap: Spring loaded for ease of roller removal.
 - .2 Brackets: Nickel plated cold rolled steel, for single or double roller tube installations as required.
 - .1 Mounting: Ceiling or wall, confirm on site with Departmental Representative.
 - .3 Bottom bar: External mount, round.
 - .4 Fascia: Extruded aluminum, finish as selected by Departmental Representative from manufacturer's standard range.
 - .5 Operating chain: #10 nickel plated steel or stainless steel bead chain.
 - .6 Sizes: As determined by field measurement.
 - .7 Standard of acceptance:
 - .1 Light Harvesting Shading Solutions Inc.
 - .2 Urban Edge Shading.
 - .3 Contempra Textrol 2000.
 - .4 Alternate products of equal performance characteristics may be proposed for review and consideration.
- .2 Fabrics:
 - .1 Blackout fabric: Polyester with foam coating, openness factor 0%. Colour as selected by Departmental Representative from manufacturer's standard range.
 - .1 Standard of acceptance:
 - .1 Mermet Avila.
 - .2 Alternate products of equal performance characteristics may be proposed for review and consideration.
 - .2 Sunshade fabric: PVC coated fibreglass, openness factor 1%. Colour as selected by Departmental Representative from manufacturer's standard range.
 - .1 Standard of acceptance:
 - .1 Mermet E Screen.
 - .2 Alternate products of equal performance characteristics may be proposed for review and consideration.

Part 3 Execution**3.1 EXAMINATION**

- .1 Verify conditions of substrates and surfaces to receive roller shades are acceptable for product installation in accordance with manufacturer's instructions.

- .1 Visually inspect substrate.
- .2 Inform Departmental Representative of unacceptable conditions.
- .3 Proceed with installation only after unacceptable conditions have been remedied.

3.2 INSTALLATION

- .1 Install roller shades in accordance with manufacturer's instructions.
- .2 Install roller shades level and true.
- .3 Use non-corrosive metal fasteners for installation, concealed in final assembly.

3.3 ADJUSTING

- .1 Adjust shade components for correct function and operation in accordance with manufacturer's written instructions.
- .2 Adjust to provide for quiet operation without binding.
- .3 Adjust shade and shade cloth to hang flat without waves, folds, or distortion.
- .4 Lubricate moving parts to operate smoothly and fit accurately.

3.4 TOLERANCES

- .1 Maximum variation of gap at window opening perimeter: 6 mm per 2.4 m of shade height.

3.5 CLEANING

- .1 Progress Cleaning: Clean in accordance with Section 01 74 11 - Cleaning.
 - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: Upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.
- .3 Clean exposed surfaces and edges/ends, including metal and shade cloth, using non-abrasive materials and methods recommended by manufacturer. Remove and replace work that cannot be satisfactorily cleaned.
- .4 Waste Management: Remove waste materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

3.6 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by roller shade installation.

END OF SECTION