SECTION 12 24 00

WINDOW SHADES

PART 1 - GENERAL

1.1 PURPOSE

A. This guideline is intended to provide useful information to the Professional Service Provider (PSP) to establish a basis of design. PSP is to apply the principles of this section such that the University of Texas at Arlington (UTA) may achieve a level of quality and consistency in the design and construction of their facilities. Deviations from these guidelines must be approved by UTA and may require justification through Life Cycle Cost (LCC) analysis and submitted to UTA for approval.

1.2 **LESSONS LEARNED AND DESIGN CONSIDERATIONS**

A. Colors to be Linen to match New Linen wall color or Espresso to match dark bronze mullions.

1.3 SUMMARY

A. This specification covers the provision of manual roller shades including all systems related support and installation hardware and materials in accordance with the shade manufacturer's specifications as specified in locations indicated on the architectural plans.

1.4 Turnkey responsibility for manual roller shade systems:

A. To ensure control of responsibility for satisfactory performance and installation of the manual roller shade systems, the design, engineering and installation shall be assigned to a single manufacturer and his authorized dealer/installer.

B. The base building contractor (main contractor) shall provide and coordinate. The following items, with the window shade contractor/installer, are for all window shade systems:

1). Shade pockets recessed into ceiling

1.5 SUBMITTALS

A. Product data: Manufacturer's descriptive product data sheets including performance data, installation instructions, adjustment and operating instructions.

B. Shop Drawings:

1). Head, jamb and sill details and relevant dimensions of pockets and mounting requirements.

2). Schematic layout of shades and control locations

3). Shade schedule reflecting room numbers and window locations/details.

C. Samples:

1). Selection of shade fabric swatches for initial fabric selection.

2). Hardware samples for material selection and color selection of visible hardware.

D. Test reports and certificates:

1). Provide fabric test reports for compliance with fabric test properties.

1.6 WARRANTY

A. Manufacturer shall provide five (5) year warranty from Substantial Completion on all hardware and shade material.

B. Bead chain in all manual systems is a fail-safe element and is not warranted.

1.7 DELIVERY AND STORAGE

A. Systems shall be delivered to the site in original manufacturer's containers.

B. Containers shall be uniquely labeled to identify the corresponding window openings and locations.

C. All materials shall be stored in a dry, secure place protected from weather, water and heat, surface contaminants, construction traffic and all other potential damage.

PART 2 - PRODUCTS

2.1 ROLLER SHADES

A. Acceptable product: TimberBlind/Metro Shade.

1). Substitutions: In accordance with Division 01.

B. Components:
1). Clutch system shall be comprised of multi-banded steel springs that create the pressure necessary to keep the shade in the desired position. All plastic components to be made of glass reinforced polyester thermo polymer (PBT) conforming to military specification MIL M-24519. The clutch shall develop no more than ½ pound drag for easy lift.
2). Tube shall be 1¾" (38mm) OD extruded aluminum with .075" wall thickness. The tube shall incorporate an integral channel for affixing the shade band to the tube via spline. Extruded aluminum shade roller tube of a diameter and wall thickness required to support shade fabric without excessive deflection.

C. Alternative Mounting options:
1). The tube shall be 2½" (63mm) OD aluminum extruded tube with .09" wall thickness.
2). The tube shall be 1¼" (32mm) OD aluminum extruded tube with .065" wall thickness.
3). Brackets to be constructed of 0.07" (1.8mm) thick painted or nickel-plated, C1008/1010 cold rolled steel. Painted brackets are finished with high quality baked enamel coating. End plug bracket shall have a lock down retainer device. Brackets are reversible for right or left-hand installation.
4). End Plug to consist of an outside sleeve rotating freely on a center shaft, providing the bearing surfaces on which the roller rides. Outside sleeve and center shaft to be made of heat stabilized fiber reinforced plastic to ensure smooth, wear resistant operation.
5). Hembar shall be extruded aluminum, heat sealed and completely enclosed into a 1½" pocket.
6). Optional Fascia and Back plate shall be made of extruded aluminum (alloy/hardness 6063/T5) with an average thickness of .062" (1.6mm). Panel will be finished with an electro-statically applied, baked-on powder coating or anodized.
7). Optional Fascia Bracket Set shall be made of stamped zinc-plated steel and allow the idler end to drop into the brackets for ease of installation. Brackets will allow for mounting of shade system with fascia panel either inside, outside, or to the ceiling.
8). Optional Side Channels and Sill Channels shall be made of extruded aluminum and prevent light from entering along the edges of the shade for light block. Pile inserts fit into side channels to further enhance light blocking and reduce wear on shade fabric.
9). Optional Shade Pocket and Pocket Closure shall be made of extruded Aluminum for optional mounting in recessed ceiling pocket.
10). Fabric shall be specified by designer. Please refer to TimberBlind/Metro Shade sample cards for specifics on color selection, Parameters/guidelines and attributes.

2.2 BLACKOUT SHADES

A. Acceptable product: SWFcontract Lightweaves Blackout.
1). Substitutions: In accordance with Division 01.

B. Components:
1). Clutch system shall be comprised of multi-banded steel springs that create the pressure necessary to keep the shade in the desired position. All plastic components to be made of glass reinforced polyester thermo polymer (PBT) conforming to military specification MIL M-24519. The clutch shall develop no more than ½ pound drag for easy lift.
2). Tube shall be 1¾" (38mm) OD extruded aluminum with .075" wall thickness. The tube shall incorporate an integral channel for affixing the shade band to the tube via spline. Extruded aluminum shade roller tube of a diameter and wall thickness required to support shade fabric without excessive deflection.

C. Alternative Mounting options:
1). The tube shall be 2½" (63mm) OD aluminum extruded tube with .09" wall thickness.
2). The tube shall be 1¼" (32mm) OD aluminum extruded tube with .065" wall thickness.
3). Brackets to be constructed of 0.07" (1.8mm) thick painted or nickel-plated, C1008/1010 cold rolled steel. Painted brackets are finished with high quality baked enamel coating. End plug bracket shall have a lock down retainer device. Brackets are reversible for right or left-hand installation.
4). End Plug to consist of an outside sleeve rotating freely on a center shaft, providing the bearing surfaces on which the roller rides. Outside sleeve and center shaft to be made of heat stabilized fiber reinforced plastic to ensure smooth, wear resistant operation.

5). Hembar shall be extruded aluminum, heat sealed and completely enclosed into a 1½" pocket.
6). Optional Fascia and Back plate shall be made of extruded aluminum (alloy/hardness 6063/T5) with an average thickness of .062" (1.6mm). Panel will be finished with an electro-statically applied, baked-on powder coating or anodized.
7). Optional Fascia Bracket Set shall be made of stamped zinc-plated steel and allow the idler end to drop into the brackets for ease of installation. Brackets will allow for mounting of shade system with fascia panel either inside, outside, or to the ceiling.
8). Optional Side Channels and Sill Channels shall be made of extruded aluminum and prevent light from entering along the edges of the shade for light block. Pile inserts fit into side channels to further enhance light blocking and reduce wear on shade fabric.
9). Optional Shade Pocket and Pocket Closure shall be made of extruded Aluminum for optional mounting in recessed ceiling pocket.
10). Fabric shall be specified by designer. Please refer to TimberBlind/Metro Shade sample cards for specifics on color selection, Parameters/guidelines and attributes.

2.3 CELLULAR SHADES

A. Acceptable product: SWFcontract CrystalPleat Cellular Shades.
1). Substitutions: In accordance with Division 01.

B. Components:
1). Headrail shall be 0.665" high x 1.540" deep extruded aluminum headrail with a wall thickness of 0.045" and painted to coordinate with fabric color.
2). Cord Lock shall be a snap-in design of injection molded thermoplastic incorporating a metal, free-floating, serrated cord locking roller.
3). Lift Cord shall be 1.2mm polyester and concealed for a clean appearance. A snap tassel and joiner ball connect to a single Danskord for raising and lowering the shade. Cord, tassel and joiner ball are color coordinated with fabric.
4). Fabric shall be 3/8" single cell, or double cell, selected from an assortment of woven or non-woven, spun-lace and point bond 100% polyester fabrics. Finish: Garden Retreat.
5). Installation brackets shall be low profile, hidden snap-in design made of 0.025" zinc-plated spring steel.
6). Bottomrail shall be 0.375" high x 2" deep extruded aluminum with a wall thickness of 0.045" and painted to coordinate with fabric color.

PART 3 – EXECUTION

3.1 INSPECTION

A. Window treatment subcontractor shall be responsible for inspection of site, field measurements, and approval of mounting surfaces and installation conditions.
B. Subcontractor shall verify that site is free of conditions that interfere with blind installation and operation, and shall begin installation only when any unsatisfactory conditions have been rectified.

3.2 INSTALLATION

A. Installation shall comply with manufacturer specification, standards and procedures.
B. Provide support brackets as per manufacturer installation instructions.
C. See installation instructions packaged with blinds for more installation details.
D. Provide adequate clearance to permit unencumbered operation of blind and hardware.
E. Demonstrate blinds to be in uniform and smooth working order.

3.3 CLEANING

A. Clean soiled blinds with mild soap solution only. Do not use cleaning methods involving heat, bleach, abrasives, or solvents. Do not use window cleaner or cloths with paper content.
B. Ensure proper drying following cleaning by providing adequate ventilation.

PART 4 APPENDIX

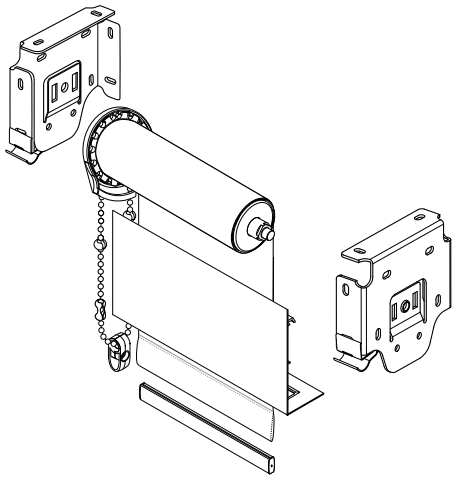
4.1 PRODUCT DATA / CUT SHEETS

A. SWFcontract, Lightweaves, 10% openness

B. SWFcontract, Lightweaves, blackout
C. SWFcontract, Cellular Shades

END OF SECTION

SWFcontract MANUAL SOLAR SHADES



Product Features and Benefits

- **Chain-operated clutch system**
- **Four clutch sizes available to fit window size**
- **Extruded aluminum roller tube with fabric spline channel**
- **Every shade is run full up and down, and limits are set in manufacturing**
- **Enclosed heat-welded hem bar pocket**
- **Powder-coated components**
- **Solar and blackout fabric collection, including ShadeDefense Antimicrobial Protection, GREENGUARD certified, and PVC-free options, are available**
- **Limited lifetime warranty**

Product Specifications

Roller tube shall be extruded aluminum engineered with channel to accept fabric spline. The diameter and wall thickness (determined by manufacturer, based on fabric selection and shade size) shall provide minimal deflection and optimal performance.

TruePerformance™ Clutch System shall consist of fiberglass-filled nylon for wear resistance, smooth operation, and corrosion resistance. The clutch uses a Velvetrol™ internal spring arrangement for a smooth pulling force that locks the shade in any position when operating the control loop. The clutch mechanism is bidirectional and does not require adjustment or lubrication. Clutch to be inserted in roller tube at manufacturing. Clutch size shall be determined by manufacturer based on fabric selection and shade size.

Control loop shall be #10 stainless steel bead chain. Bead stops attached to the chain to protect the shade from over-rotation.

Idle end shall be constructed of high-strength, fiberglass-filled nylon with spring-loaded pin-end technology for wear resistance, smooth operation, and corrosion resistance.

Lift assist system shall be a heavy-duty torsion spring located inside the roller tube. Mechanism reduces the pull force, allowing easy lifting of larger shade.

Spline system shall consist of a co-extruded PVC spline, heat-sealed to the shade fabric and inserted into an engineered channel on the roller tube. The removable spline system allows for adjustability on-site and ease in changing fabric bands in the field.

Hem bar shall be an aluminum extrusion enclosed in a fabric hem pocket with heat-sealed seams and ends.

Installation brackets shall be 16 gauge, corrosion-resistant, stamped steel, and can accommodate overhead, side, and face mounting. Brackets are powder-coated and available in white, vanilla, gray, or black. Optional dual shade brackets shall hold two shades in one bracket assembly. Coupled shades shall be connected with a linked bracket mechanism.

Solar and blackout shade fabric shall be flame retardant, fade and stain resistant, antistatic, and antimicrobial, and shall pass NFPA 701-1999 FR and ASTM-G21 and G22. Shades with railroaded fabric may have heat-sealed seams. Seam heights may be specified. Fabrics range from 100% opaque to 30% openness.

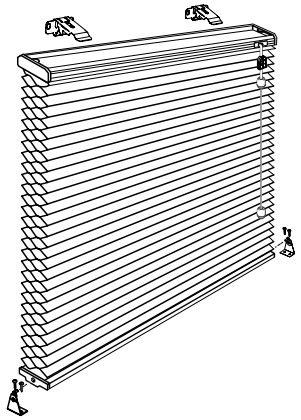
Options:

- Dual shades
- Coupled shades
- Fascia (3" or 4", front and back)
- Dual shade fascia (7.625")
- Side, sill, and center channels
- Pockets (4.75" or 7.5")
- Closure plate (2", 3", or 5")
- External fabric-wrapped hem bar
- Plastic bead chain
- Bracket covers
- Lift assist for large shades

CELLULAR AND PLEATED SHADES PRODUCT FEATURES

CrystalPleat® Cellular Shades

Product Features and Benefits

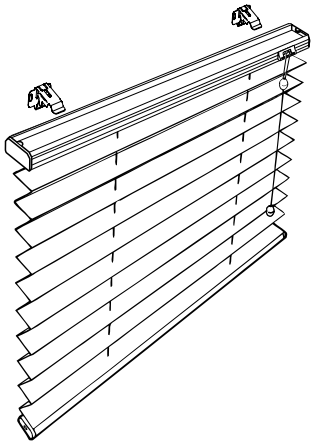


- Fabrics available in 3/8" or 3/4" single cell and 3/8" double cell construction
- Scroll FR 3/4" single cell fabric meets NFPA 701
- Color coordinated aluminum headrail and bottomrail
- Low profile aluminum headrail
- Snap-in hidden brackets
- Concealed cords
- Standard lift cord/cordlock control
- Continuous-loop lift option
- Motorized option
- Cordless lift system option
- Bottom up/top down option
- Top down only with continuous-loop
- Sun up/sun down option
- Specialty shape option
- Limited lifetime warranty

Identical to Graber® CrystalPleat® Cellular Shades.

EvenPleat® Pleated Shades

Product Features and Benefits

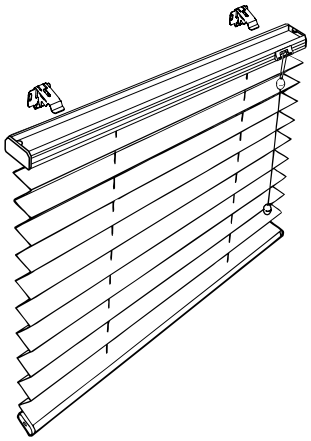


- Fabrics available in 1" or 2" pleat sizes
- Brighton FR 1" pleated fabric meets NFPA 701
- Never-sag EvenPleat technology
- Color coordinated aluminum headrail and bottomrail
- Low profile, .665" x 1.54", aluminum headrail
- Snap-in hidden brackets
- Standard lift cord/cordlock control
- Continuous-loop lift option
- Cordless lift system option
- Motorized option
- Bottom up/top down option
- Sun up/sun down option
- Specialty shape option
- Limited lifetime warranty (with loop tape)

Identical to Graber® EvenPleat® Pleated Shades.

FashionPleat® Pleated Shades

Product Features and Benefits



- Fabrics available in 1" pleat size
- Brighton FR pleated fabric meets NFPA 701
- Color coordinated aluminum headrail and bottomrail
- Low profile, .665" x 1.54", aluminum headrail
- Snap-in hidden brackets
- Standard lift cord/cordlock control
- Continuous-loop lift option
- Cordless lift system option
- Motorized option
- Bottom up/top down option
- Sun up/sun down option
- Specialty shape option
- Three-year warranty (without loop tape)

Identical to Graber® FashionPleat® Pleated Shades.