

SECTION 12493 [12 24 00]

FLEXSHADE® 2 INTERMEDIATE MOTORIZED WINDOW SHADES

Display hidden notes to specifier. (Don't know how? [Click Here](http://www.arcat.com/sd/display_hidden_notes.shtml))

\*\* NOTE TO SPECIFIER \*\* Draper®, Inc.; window shade products.

This section is based on the products of Draper, Inc., which is located at:

 411 S. Pearl Street

 P. O. Box 425

 Spiceland, IN 47385-0425

 Toll Free Tel: 800-238-7999

 Tel: 765-987-7999

 Fax: 866-637-5611

 Email: drapercontract@draperinc.com

 Web: [www.draperinc.com](http://www.draperinc.com)

 [ [Click Here](http://www.arcat.com/arcatcos/cos43/arc43272.html) ] for additional information.

Draper is a leader in the manufacture of window shades, projection screens, and gymnasium equipment. Founded in 1902, Draper maintains a tradition of quality and service. Draper products include FlexShade roller-operated and fixed window shades.

This section can be used for specifying motorized Intermediate size Draper FlexShade® 2 Motorized FlexShade

1. GENERAL
	1. SECTION INCLUDES
		1. Motorized, roll-up fabric interior window shades including motor operator, controls, and mounting hardware.
	2. RELATED SECTIONS

\*\* NOTE TO SPECIFIER \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 06100 [06 10 00] – Rough Carpentry: Blocking for support of window shade hardware.
		2. Section 07900 [07 90 00] - Joint Sealers: Sealants for perimeter of shade system.
		3. Section 09260 [09 21 23] - Gypsum Board Assemblies: Suspended gypsum board ceilings to contain recessed window shade pockets.
		4. Section 09510 [09 51 23] - Acoustical Tile Ceilings: Suspended acoustical panel ceilings to contain recessed window shade pockets.
		5. Section 11132 [11 52 13] - Motorized Projection Screens: Motorized projection screens to be interfaced with shade controls.
		6. Section 11132 [11 52 13] - Motorized Projector Lifts: Motorized projector lifts and mounts to be interfaced with shade controls.
		7. Division 16 [26] - Electrical: Electrical supply, conduit, and wiring for motorized window shades.
	1. REFERENCES

\*\* NOTE TO SPECIFIER \*\* Delete references from the list below that are not actually required by the text of the edited section.

* + 1. NFPA 70 - National Electrical Code.
		2. NFPA 701-99 - Fire Tests for Flame-Resistant Textiles and Films.
		3. GREENGUARD Environmental Institute Gold.
		4. US Green Building Council.
		5. ANSI/WCMA A100.1-2018
	1. SUBMITTALS
		1. Submit under provisions of Section 01330 [01 33 26] - Submittal Procedures:
		2. Product Data: Manufacturer's data sheets on each product specified, including:
			1. Preparation instructions and recommendations.
			2. Installation and maintenance instructions.
			3. Styles, material descriptions, dimensions of individual components, profiles, features, finishes and operating instructions.
			4. Storage and handling requirements and recommendations.
			5. Mounting details and installation methods.
			6. Typical wiring diagrams including integration of motor controllers with building management system, audiovisual and lighting control systems as applicable.

\*\* NOTE TO SPECIFIER \*\* Include the following paragraph for projects with complex requirements for window treatment. Delete if not required.

* + 1. Shop Drawings: Plans, elevations, sections, product details, installation details, operational clearances, wiring diagrams and relationship to adjacent work.

\*\* NOTE TO SPECIFIER \*\* Delete the following paragraphs if LEED is not applicable.

* + 1. LEED Submittals: Provide documentation of how the requirements of Credit will be met.
		2. Window Treatment Schedule: For all roller shades. Use same room designations as indicated on the Drawings, field verified window dimensions, quantities, type of shade, controls, fabric, and color, and include opening sizes and key to typical mounting details.

\*\* NOTE TO SPECIFIER \*\* Delete Selection Samples paragraph if colors and shade fabrics have already been selected.

* + 1. Selection Samples: For each finish product specified, two complete sets of shade cloth options and aluminum finish color samples representing manufacturer's full range of available colors and patterns.
		2. Verification Samples: For each finish product specified, two complete sets of shade components, unassembled, demonstrating compliance with specified requirements. Shade fabric sample and aluminum finish sample as selected, representing actual product, color, and patterns. Mark face of material to indicate interior faces.
		3. Maintenance Data: Methods for maintaining roller shades, precautions regarding cleaning materials and methods, instructions for operating hardware and controls.
		4. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
	1. QUALITY ASSURANCE
		1. Manufacturer Qualifications: Obtain roller shades through one source from a single manufacturer with a minimum of twenty years experience in manufacturing products comparable to those specified in this section.
		2. NFPA Flame-Test: Passes NFPA 701. Materials tested shall be identical to products proposed for use.

\*\* NOTE TO SPECIFIER \*\* Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.

* + 1. Mock-Up: Provide a mock-up of one of each type roller shade assembly specified for evaluation of mounting, appearance and accessories.
			1. Locate mock-up in window(s) designated by Architect.
			2. Do not proceed with remaining work until mock-up is accepted by Architect.
	1. DELIVERY, STORAGE, AND HANDLING
		1. Do not deliver window shades until building is enclosed and construction within spaces where shades will be installed is substantially complete.
		2. Deliver products in manufacturer's original, unopened, undamaged containers with labels intact.
		3. Label containers and shades according to Window Shade Schedule.
		4. Store products in manufacturer's unopened packaging until ready for installation.
	2. SEQUENCING
		1. Ensure that locating templates and other information required for installation of products of this section are furnished to affected trades in time to prevent interruption of construction progress.
		2. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.
	3. PROJECT CONDITIONS
		1. Install roller shades after finish work and ambient temperature, humidity and ventilation conditions are maintained at levels recommended for project upon completion.
	4. WARRANTY
		1. Hardware and Shade Fabric: Draper’s standard twenty-five year limited warranty.
		2. Motors and Controls: Draper’s standard five year limited warranty.
1. PRODUCTS
	1. MANUFACTURERS
		1. Acceptable Manufacturer: Draper®, Inc., which is located at: 411 S. Pearl P. O. Box 425; Spiceland, IN 47385-0425. ASD. Toll Free Tel: 800-238-7999; Tel: 765-987-7999; Fax: 866-637-5611; Web: [www.draperinc.com](http://www.draperinc.com).

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
		2. Requests for substitutions will be considered in accordance with provisions of Section 01600.

\*\* NOTE TO SPECIFIER \*\* Use the following paragraphs to specify Draper FlexShade 2 Motorized FlexShades. Select the motor and control types desired from the following paragraphs. Delete if not required.

* 1. INTERMEDIATE SIZE MOTORIZED WINDOW SHADES
		1. Type: Motorized vertical roll-up, fabric, window shade with motors, controls, mounting brackets, and other components necessary for complete installation; Motorized FlexShade® 2 as manufactured by Draper, Inc.
		2. Shade Motor and Control System

\*\* NOTE TO SPECIFIER \*\* Select one of the following motor option paragraphs and delete those not required. Descriptions of each Motor and Control system are included with each option below. Contact Draper for more information concerning motor limitations.

All controls and receivers will be external to the motor. Can be tied into building systems using optional external control interfaces. Only those controls listed in this section will operate this motor.

Quiet Standard Motor: Motor operates at 44 Db. Motor noise is approximately 30 percent less than standard tubular motors. All controls and receivers will be external to the motor. Can be tied into building systems using optional external control interfaces. Only those controls listed will operate this motor.

* + - 1. FlexShade 2 120V AC motor. Single phase, 60 HZ, instantly reversible, lifetime lubricated, and equipped with internal thermal overload protector, electric brake, and pre-set accessible limit switches. Tubular motor concealed inside each shade roller tube.
			2. FlexShade 2 Quiet 120V AC motor. Operates at 44 Db measured 3 feet from the motor. Makes no audible clicks when motor stops or starts. Tubular motor concealed inside each shade roller tube.

\*\* NOTE TO SPECIFIER \*\* Select one of the following control option paragraphs and delete the ones not required. For each control selected select the control device(s) required and delete those not required.

* + - * 1. Individual Control:

Wall Switch - Toggle three position wall switch.

Wall Switch - Key operated three position wall switch.

* + - * 1. Group Control:

ISO relay - ETL component. One ISO relay per motor. Allows 110-120V group switching via toggle switch. Allows for up to 12 motors on one switch.

GC4 - ETL assembly. Panelized version with four ISO relays. Up to three GC4s can be linked together for control of up to 12 motors from any single 15 amp double throw wall switch.

* + - * 1. Individual and Group Control:

IGC4N1. Individual and Group control of up to four motors with up to three intermediate positions per motor.

\*\* NOTE TO SPECIFIER \*\* Radio Technology Motor: Motor with built-in radio receiver. 3-wire pigtail allows for attachment of optional three prong plug for plug-an-play operation. Can be tied into building systems using optional external control interfaces. Only those controls listed will operate this motor.

* + - 1. FlexShade 2 RTS AC.
				1. Standard Motor: 120V AC motor with built-in radio receiver. Tubular motor concealed inside each shade roller tube.

\*\* NOTE TO SPECIFIER \*\* Select the control device(s) required and delete those not required.

* + - * 1. Individual Control, Group Control and Individual and Group Control:

1-channel wireless handheld transmitter-White.

1-channel wireless handheld transmitter-Ivory.

2-channel wireless handheld transmitter-White.

2-channel wireless handheld transmitter-Ivory.

3-channel wireless handheld transmitter-White.

3-channel wireless handheld transmitter-Ivory.

4-channel wireless handheld transmitter-White.

4-channel wireless handheld transmitter-Ivory.

5-channel wireless handheld transmitter-White.

5-channel wireless handheld transmitter-Ivory.

1-Channel wireless handheld transmitter-White.

1-Channel wireless handheld transmitter-Black.

5-Channel wireless handheld transmitter-White.

5-Channel wireless handheld transmitter-Black.

16-Channel wireless handheld transmitter-White.

16-Channel wireless handheld transmitter-Silver.

1 channel wireless wall switch for radio motor control-White.

1 channel wireless wall switch for radio motor control-Ivory.

2 channel wireless wall switch for radio motor control-White.

2 channel wireless wall switch for radio motor control-Ivory.

3 channel wireless wall switch for radio motor control-White.

3 channel wireless wall switch for radio motor control-Ivory.

4 channel wireless wall switch for radio motor control-White.

4 channel wireless wall switch for radio motor control-Ivory

5 channel wireless wall switch for radio motor control-White.

5 channel wireless wall switch for radio motor control-Ivory.

RS-232/Dry Contact - Allows for full control of radio motor shade via RS-232/dry contact interface.

Wireless Sun Sensor - Allows operation of one group of radio motors per sensor.

Wireless Timer - Allows operation of one group of radio motors per timer.

Repeater, 1 per project to extend range of transmitters.

(URTSI II) Universal Interface - Allows for full control of radio motor shade via RS-232/485 or IR signals.

* + - 1. FlexShade 2 485 AC.
				1. 120V AC motor with built-in low voltage controller with 3-wire pig tail and data cable. No external motor controls are required. Available with optional three prong plug. Tubular motor concealed inside each shade roller tube.

\*\* NOTE TO SPECIFIER \*\* Select the control device(s) required and delete those not required.

* + - * 1. Individual Control, Group Control & Individual and Group Control:

6 Button RS 485 switch- for up/stop/down control. 3 presets

8 button RS 485 switch- for up/stop/down. 5 presets.

Somfy Digital Network. SDN system of window shades with intelligent motors linked to an IP interface box and other input devices for automated glare control.

Bus Distribution

Data Hub for 485 Motor

5-Way RJ45 Splitter

Building Controllers

SDN Data Panel

User Interfaces

Somfy Connect BMS Interface

Somfy Connect LTI

Z Wave Digital Motor Interface (ZDMI)

Zigbee to RS485 (ZBDMI)

RTS Receiver for 485

SDN 6 button wall switch (Preprogrammed for master control)

SDN 8 button wall switch

Somfy Connect UAI Plus

Accessories

Bus Power Supply, 24V, 1A

SDN Power over Ethernet Gateway

Sensors

Animeo IP Outside Sensor Box

Animeo IP Inside Sensor Box

Animeo IP Compact Sensor

Brightness Sensor

Animeo Building Controllers

Animeo IP Building Controller

Animeo IP Sub Controller

Animeo User Interfaces

Animeo IP RTS Receiver

Animeo IP 6 button wall switch

Animeo IP 8 button wall switch

* 1. FABRIC

\*\* NOTE TO SPECIFIER \*\* Refer to Draper product literature for available shade fabrics and selection guidelines. Select fabric(s), percent open and color as applicable from the following and delete those not applicable. Use the schedule at the end of this section if required to define location(s) of multiple fabrics.

* + 1. Light-Filtering Fabrics
			1. GreenScreen Revive® 1%. GreenScreen Revive is a fire retardant PVC-free fabric constructed of 100 percent polyester yarn, with a minimum of 89 percent Repreve polyester. Repreve is recycled and recyclable, contains low VOC's, and made in the USA. Fire rating: NFPA 701-99 TM#1, California U.S. Title 19, Cradle to Cradle Certified Silver, GREENGUARD®, GREENGUARD Gold®. Approximate Openness Factor: 1 percent. Average Fabric Thickness: 0.019 inch (0.48 mm). Average Fabric Weight: 5.87 ounces per square yard.
			2. GreenScreen Revive® 5%. GreenScreen Revive is a fire retardant PVC-free fabric is constructed of 100 percent polyester yarn, with a minimum of 89 percent Repreve polyester. Repreve is recycled and recyclable, contains low VOC's, and made in the USA. Fire rating: NFPA 701-99 TM#1, California U.S. Title 19, Cradle to Cradle Certified Silver, GREENGUARD, GREENGUARD Gold, Green PVC Free. Approximate Openness Factor: 5 percent. Average Fabric Thickness: 0.017 inch (.043 mm). Average Fabric Weight: 5.01 ounces per square yard.
			3. GreenScreen Evolve® 3%: GreenScreen Evolve is a fire retardant PVC-free fabric is constructed of 100 percent polyester yarn, with up to 78% Repreve polyester. Repreve is recycled and recyclable, contains low VOC's, and made in the USA. Fire rating: NFPA 701-99 TM#1, California U.S. Title 19, Cradle to Cradle Certified Silver, GREENGUARD®, GREENGUARD Gold®, PVC Free. Approximate Openness Factor: 3 percent. Average Fabric Thickness: 0.027 inch (.068 mm). Average Fabric Weight: 8.41 ounces per square yard. Microbial Resistance, ASTM E2180 and ASTM G21: Pass.
			4. GreenScreen® Nature™ 5%: GreenScreen Nature is an inherently fire-retardant fabric constructed of 100 percent fiberglass yarn in a mock leno weave. Additional fire retardancy chemicals are not required. Nature is recyclable, contains low VOCs, is halogen- and PVC-free, and is Red List compliant with an HPD available, and made in the USA. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109 Small & Large Scale. GREENGUARD®, GREENGUARD Gold®. Approximate Openness Factor: 5 percent. Average Fabric Thickness: 0.010 inch (.024 mm). Average Fabric Weight: 5.10 ounces per square yard (174 grams per square meter). Microbial Resistance, ASTM E2180 and ASTM G21: Pass.
			5. SheerWeave® Infinity2 1%: sustainable window treatment fabric eco-friendly basketweave. Core yarn and coating are PVC-free, lead-free and 100 percent recycable. Fire classification: ASTM E-84 (Class I), NFPA 701-2004 TM#1 (small scale), NFPA 101 (Class A Rating) and CAN/ULC-S 109-03 Large, GREENGUARD®, GREENGUARD Gold®. Average 1 percent open. Average Fabric Thickness: .033 inch (.838 mm) Average Fabric Weight: 14.63 ounces per square yard.
			6. SheerWeave® Infinity2 3%: sustainable window treatment fabric eco-friendly basketweave. Core yarn and coating are PVC-free, lead-free and 100 percent recycable. Fire classification: ASTM E-84 (Class I), NFPA 701-2004 TM#1 (small scale), NFPA 101 (Class A Rating) and CAN/ULC-S 109-03 Large, GREENGUARD®, GREENGUARD Gold®. Average 3 percent open. Average Fabric Thickness: .031 inch (.79 mm) Average Fabric Weight: 13.69 ounces per square yard.
			7. SheerWeave® Infinity2 5%: sustainable window treatment fabric eco-friendly basketweave. Core yarn and coating are PVC-free, lead-free and 100 percent recycable. Fire classification: ASTM E-84 (Class I), NFPA 701-2004 TM#1 (small scale), NFPA 101 (Class A Rating) and CAN/ULC-S 109-03 Large, GREENGUARD®, GREENGUARD Gold®. Average 5 percent open. Average Fabric Thickness: .03 inch (.76 mm). Average Fabric Weight: 12.82 ounces per square yard.
			8. SheerWeave® Basic 3% by Phifer®. An economical alternative to traditional solar screen fabrics. Fire Rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), BS 5867 Part 2 Type B Performance, CAN/ULC-S 109 (large and small scale), NFPA 701 TM#2 (large scale), CAN/CGSB2-4.162-M80. Bacteria and Fungal Resistance ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental Certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101, ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. Average 3 percent Openness. Average Fabric Thickness: .025 inch. Average Fabric Weight: 16.4 ounces per square yard.
			9. SheerWeave® Basic 5% by Phifer®. An economical alternative to traditional solar screen fabrics. Fire Rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), BS 5867 Part 2 Type B Performance, CAN/ULC-S 109 (large and small scale), NFPA 701 TM#2 (large scale), CAN/CGSB2-4.162-M80. Bacteria and Fungal Resistance ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental Certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101, ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. Average 5 percent Openness. Average Fabric Thickness: 0.022 inch. Average Fabric Weight: 14.1 ounces per square yard.
			10. SheerWeave® Series SW2000 by Phifer®: 500 denier fiberglass, vinyl coated and woven into a 2 by 2 basket weave. Fire rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), BS 5867 Part 2 Type B Performance, NFPA 701 TM#2 (large scale), CAN/ULC-S 109 (large and small scale), CAN/CGSB2-4.162-M80. Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101 and ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. 14.26 oz/sq yd, .019 inches thick. Series SW2000 average 5 percent open.
			11. SheerWeave® Series SW2100 by Phifer®: VOC Emissions: GREENGUARD Gold®. Manufacturer to supply GREENGUARD Gold 500 denier fiberglass, vinyl coated and woven into a 2 by 2 basket weave. Fire rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), BS 5867 Part 2 Type B Performance, NFPA 701 TM#2 (large scale), CAN/ULC-S 109 (large and small scale), CAN/CGSB2-4.162-M80. Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101 and ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. 14.26 oz/sq yd, .019 inches thick. Series SW2100 average 10 percent open.
			12. SheerWeave® Series SW2390 Performance+ by Phifer®: 500 denier fiberglass, vinyl coated and woven into a 2 x 2 basket weave with metalized coating on outward side. Fire rating: California U.S. Title 19 (small scale), NFPA 101 (Class A Rating), BS 5867 Part 2 Type B Performance, CAN/ULC-S 109 (large and small scale), CAN/CGSB2-4.162-M80, NFPA 701 TM#1 (small scale), IBC Section 803.1.1 (Class A Rating), NFPA 701 TM#2 (large scale). Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental certification: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101 and ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. 5 percent open. .017 inches thick. 11.8 oz/square yard.
			13. SheerWeave® Series SW2400 (2410) by Phifer®: 500 denier fiberglass, vinyl coated and woven into a 2 x 2 basket weave. Fire rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), BS 5867 Part 2 Type B Performance, NFPA 701 TM#2 (large scale), CAN/ULC-S 109 (large and small scale), CAN/CGSB2-4.162-M80. Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101 and ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. 3 percent open .019 inches thick. 14.1 oz/square yard.
			14. SheerWeave® Series SW2410 Performance+ by Phifer®: 500 denier fiberglass, vinyl coated and woven into a 2 x 2 basket weave with metalized coating on outward side. Fire rating: California U.S. Title 19 (small scale), NFPA 101 (Class A Rating), BS 5867 Part 2 Type B Performance, CAN/ULC-S 109 (large and small scale), CAN/CGSB2-4.162-M80, NFPA 701 TM#1 (small scale), IBC Section 803.1.1 (Class A Rating), NFPA 701 TM#2 (large scale). Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101 and ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. 3 percent open .019 inches thick. 14.1 oz/square yard.
			15. SheerWeave® Series SW2500 by Phifer®: 500 denier fiberglass, vinyl coated and woven into a 2 x 2 basket weave. Fire rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), BS 5867 Part 2 Type B Performance, NFPA 701 TM#2 (large scale), CAN/ULC-S 109 (large and small scale), CAN/CGSB2-4.162-M80. Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101 and ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. 1 percent open, .024 inches thick. 16.39 oz/square yard.
			16. SheerWeave® Series SW2500 Performance+ by Phifer®: 500 denier fiberglass, vinyl coated and woven into a 2 x 2 basket weave with metalized coating on outward side. Fire rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), BS 5867 Part 2 Type B Performance, NFPA 701 TM#2 (large scale), CAN/ULC-S 109 (large and small scale), CAN/CGSB2-4.162-M80. Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101 and ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. 1 percent open, .024 inches thick. 16.39 oz/square yard.
			17. SheerWeave® Series SW2600 (2360) by Phifer®: 500 denier fiberglass, vinyl coated and woven into a 2 x 2 basket weave. Fire rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), BS 5867 Part 2 Type B Performance, NFPA 701 TM#2 (large scale), CAN/ULC-S 109 (large and small scale), CAN/CGSB2-4.162-M80. Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban ®antimicrobial additives. Environmental certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101 and ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. 10 percent open, .017 inches thick. 10.4 oz/square yard.
			18. SheerWeave® Series SW2701 by Phifer®: Duplex basketweave fabric—light exterior color combined with dark interior color for thermal comfort and view-through. Fire rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), BS 5867 Part 2 Type B Performance, NFPA 701 TM#2 (large scale), CAN/ULC-S 109 (large and small scale), CAN/CGSB2-4. 162-M80. Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental Certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101, ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. 1 percent open. .027 inches thick. 14.6 oz/square yard.
			19. SheerWeave® Series SW2703 by Phifer®: Duplex basketweave fabric—light exterior color combined with dark interior color for thermal comfort and view-through. Fire rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), BS 5867 Part 2 Type B Performance, NFPA 701 TM#2 (large scale), CAN/ULC-S 109 (large and small scale), CAN/CGSB2-4. 162-M80, CAN/ULC S-102. Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. 3 percent open. .028 inches thick. 14.0 oz/square yard.
			20. SheerWeave® Series SW2705 by Phifer®: Duplex basketweave fabric—light exterior color combined with dark interior color for thermal comfort and view-through. GREENGUARD Gold®. Manufacturer to supply GREENGUARD Gold certificate. Fire rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), BS 5867 Part 2 Type B Performance, NFPA 701 TM#2 (large scale), CAN/ULC-S 109 (large and small scale), CAN/CGSB2-4. 162-M80. Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental Certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101, ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. 5 percent open. .025 inches thick. 11.8 oz/square yard.
			21. SheerWeave® Series SW2710 by Phifer®: Duplex basketweave fabric—light exterior color combined with dark interior color for thermal comfort and view-through. Fire rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), BS 5867 Part 2 Type B Performance, NFPA 701 TM#2 (large scale), CAN/ULC-S 109 (large and small scale), CAN/CGSB2-4. 162-M80. Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental Certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101, ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. 10 percent open. .023 inches thick. 10.4 oz/square yard.
			22. SheerWeave® Series SW2900 (2390) by Phifer®: 500 denier fiberglass, vinyl coated and woven into a 2 x 2 basket weave. Fire rating: California U.S. Title 19 (small scale), NFPA 101 (Class A Rating), BS 5867 Part 2 Type B Performance, CAN/ULC-S 109 (large and small scale), CAN/CGSB2-4.162-M80, NFPA 701 TM#1 (small scale), IBC Section 803.1.1 (Class A Rating), NFPA 701 TM#2 (large scale). Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101 and ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. 5 percent open. .017 inches thick. 11.8 oz/square yard.
			23. SheerWeave® Series SW3000 by Phifer®: Vinyl coated fiberglass and vinyl coated polyester woven into 62 by 20 mesh. Fire rating: NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), NFPA 701 TM#2 (large scale). Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101, ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. 13.46 oz/sq yd, .028 inches thick. Average 14 percent open.
			24. SheerWeave® Series PW3500 (4000) by Phifer®: Vinyl coated polyester yarn woven into basketweave pattern. Uses DOW ECOLIBRIUM™ bio-based, phthalate-free plasticizer. Fire rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), BS 5867 Part 2 Type B Performance, NFPA 701 TM#2 (large scale), CAN/ULC-S 109 (large and small scale), CAN/CGSB2-4.162-M80. Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental Certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101 and ANSI/WCMA A 100.1-2007 for lead content, REACH (EC 1907/2006) compliant. Average 5 percent open, 19.2 oz/sq yd, .036 inches thick.
			25. SheerWeave® Series PW4100 by Phifer®: Vinyl coated polyester yarn woven into basketweave pattern. Uses DOW ECOLIBRIUM™ bio-based, phthalate-free plasticizer. Fire rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), BS 5867 Part 2 Type B Performance, NFPA 701 TM#2 (large scale), CAN/ULC-S 109 (large and small scale), CAN/CGSB2-4.162-M80. Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental Certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101 and ANSI/WCMA A 100.1-2007 for lead content, REACH (EC 1907/2006) compliant. Average 10 percent open, 17.5 oz/sq yd, .035 inches thick.
			26. SheerWeave® Series PW4400 by Phifer®: Vinyl coated polyester yarn woven into basketweave pattern. Uses DOW ECOLIBRIUM™ bio-based, phthalate-free plasticizer. Fire rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), BS 5867 Part 2 Type B Performance, NFPA 701 TM#2 (large scale), CAN/ULC-S 109 (large and small scale), CAN/CGSB2-4.162-M80. Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental Certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101 and ANSI/WCMA A 100.1-2007 for lead content, REACH (EC 1907/2006) compliant. Average 3 percent open, 20.7 oz/sq yd, .037 inches thick.
			27. SheerWeave® Series PW4500 by Phifer®: Vinyl coated polyester yarn woven into basketweave pattern. Fire rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), BS 5867 Part 2 Type B Performance, NFPA 701 TM#2 (large scale), CAN/ULC-S 109 (large and small scale). Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101, ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. Average 5 percent open, 14.4 oz/sq yd, .024 inches thick.
			28. SheerWeave® Series PW4600 by Phifer®: Vinyl coated polyester yarn woven into basketweave pattern. Fire rating: Fire rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), BS 5867 Part 2 Type B Performance, NFPA 701 TM#2 (large scale), CAN/ULC-S 109 (large and small scale). Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101, ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. Average 3 percent open, 17.4 oz/sq yd, .030 inches thick.
			29. SheerWeave® Series PW4550 by Phifer®: Vinyl coated polyester yarn woven into basketweave pattern. Fire rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), BS 5867 Part 2 Type B Performance, NFPA 701 TM#2 (large scale), CAN/ULC-S 109 (large and small scale). Bacteria and fungal Resistance. ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101, ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. Average 5 percent open, 12.5 oz/sq yd, .025 inches thick.
			30. SheerWeave® Series PW4650 by Phifer®: Vinyl coated polyester yarn woven into basketweave pattern. Fire rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), BS 5867 Part 2 Type B Performance, NFPA 701 TM#2 (large scale), CAN/ULC-S 109 (large and small scale). Bacteria and fungal Resistance. ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101, ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. Average. 3 percent open, 13.3 oz/sq yd, .026 inches thick.
			31. SheerWeave® PW4800 by Phifer®: Vinyl coated polyester with maximum UV blockage. Fire rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), BS 5867 Part 2 Type B Performance, NFPA 701 TM#2 (large scale), CAN/ ULC-S 109 (large and small scale), CAN/CGSB2-4.162-M80. Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101, ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. 1 percent openness factor. 18.5 oz/sq yd, .036 inches thick.
			32. SheerWeave® PW4901 by Phifer®: Vinyl coated polyester with maximum UV blockage. Fire rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), BS 5867 Part 2 Type B Performance, NFPA 701 TM#2 (large scale), CAN/ ULC-S 109 (large and small scale), CAN/CGSB2-4. 162-M80. Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101 and ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. UV protection: Seal of Approval by the Melanoma International Foundation (MIF) for effectiveness in preventing sun damage to the skin or eyes. 1 percent openness factor. 15.85 oz/sq yd, .028 inches thick.
			33. SheerWeave® PW4903 by Phifer®: Vinyl coated polyester with maximum UV blockage. Fire rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), NFPA 101 (Class A Rating), IBC Section 803.1.1 (Class A Rating), BS 5867 Part 2 Type B Performance, NFPA 701 TM#2 (large scale), CAN/ ULC-S 109 (large and small scale), CAN/CGSB2-4. 162-M80. Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101 and ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. UV protection: Seal of Approval by the Melanoma International Foundation (MIF) for effectiveness in preventing sun damage to the skin or eyes. 3 percent openness factor. 14.9 oz/sq yd, .027 inches thick.
			34. SheerWeave® Series SW5000 by Phifer®: Polyester and vinyl coated polyester woven into a 42 by 20 mesh. Fire rating: California Technical Bulletin 117 Sect. E. Part 1/ /UBC (Class 1)/British Standard 5867. Varies depending on color. Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, ASTM D3273, AATCC 30 Part 3, GREENGUARD® Mold and Bacteria Standard ASTM 6329; includes Microban® antimicrobial additives. Environmental certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101 and ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. 12.3 to14.5 oz/sq yd, .035 inches - .044 inches thick, depending on color. 5 to 10 percent open, depending on color.
			35. SheerWeave® Series SW7450 by Phifer®: PVC-free polyester with acrylic coating. Fire rating: California Technical Bulletin 117, IBC Section 803.1.1 (Class A Rating), NFPA 101 (Class A Rating). Bacteria and Fungal Resistance: ASTM G21-96, AATCC 174-1998 Part II and III. Environmental Certification: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe Use: RoHS/Directive 2002/95/EC, ANSI/WCMA A 100.1-2007 for lead content, US Consumer Product Safety Commission Section 101. UV Protection: Seal of Approval by the Melanoma International Foundation (MIF) for effectiveness in preventing sun damage to the skin or eyes. .026 inches thick, 6.54 oz/square yard.
			36. SheerWeave® Series SW7650 by Phifer®: PVC-free polyester. Fire rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), BS 5867 Part 2 Type B Performance, CAN/ULC-S 109 (large and small scale). Bacteria and fungal resistance: ASTM G21-96, AATCC 174-1998 Part II and III. Environmental certification: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, ANSI/WCMA A 100.1-2007 for lead content, US Consumer Product Safety Commission Section 101. UV protection: Seal of Approval by the Melanoma International Foundation (MIF) for effectiveness in preventing sun damage to the skin or eyes. .014 inches thick, 6.2 oz/square yard.
			37. SheerWeave® Series SW8000 by Phifer®: PVC-free polyester. Fire rating: California U.S. Title 19 (small scale), BS 5867 2008 Part 2 Type B Performance, IBC Section 803.1.1 (Class A Rating), NFPA 701 TM#1 (small scale), NFPA 701 TM#2 (large scale), CAN/ULC-S 109 (large and small scale), CAN/CGSB2-4. 162-M80, B1 (DIN 4102-1), NFPA 101 (Class A Rating)﻿. Bacteria and fungal resistance: ASTM E 2180, ASTM G21. Environmental certification: Cradle to Cradle Certified™ Bronze and certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, ANSI/WCMA A 100.1-2007 for lead content, US Consumer Product Safety Commission Section 101and REACH (EC 1907/2006) compliant. UV Protection: Seal of Approval by the Melanoma International Foundation (MIF) for effectiveness in preventing sun damage to the skin or eyes. Average 3% open. .019 inches thick. 7.35 oz/square yard.
			38. E Screen™ 1% by Mermet®: PVC coated fiberglass yarn woven in 2 by 2 basketweave. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. Average 1 percent open, .020 inches thick, 13.3 oz/square yard.
			39. E Screen™ 3% by Mermet®: PVC coated fiberglass yarn woven in 2 by 2 basketweave. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. Average 3 percent open, .017 inches thick, 11.6 oz/square yard.
			40. E Screen™ 5% by Mermet®: PVC coated fiberglass yarn woven in 2 by 2 basketweave. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. Average 5 percent open, .016 inches thick, 10.7 oz/square yard.
			41. E Screen™ 10% by Mermet®: PVC coated fiberglass yarn woven in 2 by 2 basketweave. .016 inches thick. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. Average 10 percent open, .020 inches thick, 10.3 oz/square yd.
			42. E Screen™ 1% with KOOLBLACK® by Mermet®: PVC coated fiberglass yarn woven in 2 by 2 basketweave. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. Average 1 percent open, .021 inches thick. Weight: 12.95 oz/square yard.
			43. E Screen™ with KOOLBLACK®. 3 percent openness factor by Mermet®: PVC coated fiberglass yarn woven in 2 by 2 basketweave. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. Average 3 percent open, .020 inches thick, 11.3 oz. per square yard.
			44. E Screen™ with KOOLBLACK®. 5 percent openness factor by Mermet®: PVC coated fiberglass yarn woven in 2 by 2 basketweave. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. Average 5 percent open, .019 inches thick, 10.6 oz/square yard.
			45. E Screen Deco™ 1% by Mermet®: PVC coated fiberglass yarn woven in 2 by 2 basketweave. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. 1 percent open, .022 inches thick. 12.30 oz/square yard.
			46. E Screen Deco™ 3% by Mermet®: PVC coated fiberglass yarn woven in 2 by 2 basketweave. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. 3 percent open, .019 inches thick. 11.50 oz/square yard.
			47. E Screen Chroma™ by Mermet®: PVC coated fiberglass yarn woven in 2 by 2 basketweave with metalized coating on outward side. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. 3 percent open, .020 inches thick. 11.92 oz/square yard.
			48. M Screen™ 1% by Mermet®: PVC coated fiberglass in 1 by 2 weave. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. 1 percent open, .022 inches thick, 13.12 oz/square yard.
			49. M Screen™ 3% by Mermet®: PVC coated fiberglass in 1 by 2 weave. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. 3 percent open, .022 inches thick, 12.27 oz/square yard.
			50. M Screen™ 5% by Mermet®: PVC coated fiberglass in 1 by 2 weave. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. 5 percent open, .022 inches thick, 11.3 oz/square yard.
			51. M Screen Deco™ 3% by Mermet®: PVC coated fiberglass in a rib weave. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. 3 percent open, .023 inches thick, 12.721 oz/square yd.
			52. M Screen Deco™ 5% by Mermet®: Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. 5 percent open, .020 inches thick, 11.3 oz/square yd.
			53. S Screen™ 1% by Mermet®: PVC coated fiberglass wrapped in polyester thread in a plain weave. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. 3 percent open, .041 inches thick, 19.10 oz/square yard.
			54. S Screen™ 4% by Mermet®: PVC coated fiberglass wrapped in polyester thread in a plain weave. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. ASTM E2180 and ASTM G21. Environmental benefits: RoHS – lead free. 4 percent open, .037 inches thick, 18.9 oz/square yard.
			55. S Screen Naturals™ 5% by Mermet®: PVC coated fiberglass wrapped in polyester thread in a fancy weave. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. 5 percent open, .042 inches thick 15 oz/square yard.
			56. T Screen™ 3% by Mermet®: PVC coated fiberglass woven mesh. Dark on one side, light on the other. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. Average 3 percent open, .025 inches thick, 11.6 oz/square yard.
			57. T Screen Deco™ 1% by Mermet®: PVC coated fiberglass satin style. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. Average 1 percent open, .028 inches thick, 13.76 oz/square yd.
			58. T Screen Deco™ 3% by Mermet®: PVC coated fiberglass satin style. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. Average 3 percent open, .028 inches thick, 12.98 oz/square yard.
			59. T Screen Deco™ 5% by Mermet®: PVC coated fiberglass satin style. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. Average 5 percent open, .028 inches thick, 11.89 oz/square yard.
			60. T Screen™ with KOOLBLACK® 1% by Mermet®: PVC coated fiberglass woven mesh. Dark on one side, light on the other. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. Average 1 percent open, .024 inches thick, 13.54 oz/square yard.
			61. T Screen™ with KOOLBLACK® 3% by Mermet®: PVC coated fiberglass woven mesh. Dark on one side, light on the other. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. Average 3 percent open, .029 inches thick, 13.27 oz/square yard.
			62. T Screen™ with KOOLBLACK®. 5 percent openness factor by Mermet®: PVC coated fiberglass woven mesh. Dark on one side, light on the other. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. Average 5 percent open, .027 inches thick, 12.48 oz/ square yard.
			63. T Screen Naturals™ 1% by Mermet®: PVC coated fiberglass satin style. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. Average 1 percent open, .027 inches thick, 13.83 oz/square yard.
			64. T Screen Naturals™ 3% by Mermet®: PVC coated fiberglass satin style. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. Average 3 percent open, .027 inches thick, 12.59 oz/ square yard.
			65. T Screen Naturals™ 5% by Mermet®: PVC coated fiberglass satin style. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. Average 5 percent open, .028 inches thick, 12.24 oz/ square yard.
			66. Soltis® Perform 92 4% by Serge Ferrari®: PVC-coated polyester with silver backing on outside and pre-tensioning process for dimensional stability. Fire rating: Method 1/NFPA 701, CSFM T19, Class A/ ASTM E84. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Recyclable through TexyLoop. 4 percent open, .018 inches thick, 12.4 oz/square yard.
			67. Soltis® Master 99 3% by Serge Ferrari®: PVC-coated polyester with silver backing on outside and pre-tensioning process for dimensional stability. Fire rating: Method 1/NFPA 701, CSFM T19, Class A/ ASTM E84. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Recyclable through TexyLoop. 3 percent open, .0156 inches thick, 8.6 oz/ square yard.
			68. SilverScreen 4% by Verosol: 36 percent fiberglass and 64 percent vinyl with an ultra-fine layer of aluminum on the backside. Fire rating: NFP 92503 specification M1, NFPA 701, B5 5867 Part 2 Type B, AS 1530. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant - Lead Free, Formaldehyde free. 5 percent Open, 0.020 inches thick, 11.7974 oz/square yard.
		2. Room Darkening Fabrics
			1. SunBloc Series SB9000: Close woven fiberglass base textile with sun-resistant vinyl film bonded to each side, opaque with minimum tensile strength of 190 pounds for warp and 180 pounds for fill. Fire rating: NFPA 701 1006-Test 1, California U.S. Title 19. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. REACH and RoHS compliant - Lead Free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. Washable and stain resistant. Same color both sides. Opaque, .015 inches thick, 12 oz/square yard.
			2. SunBloc Series SB9100: Close woven fiberglass base textile with sun-resistant vinyl film bonded to each side, opaque with minimum tensile strength of 190 pounds for warp and 180 pounds for fill. Fire rating: NFPA 701 1006-Test 1, California U.S. Title 19. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. REACH and RoHS compliant - Lead Free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. Washable and stain resistant. White exterior in all colors. Opaque, .013 inches thick, 12 oz/square yard.
			3. Apagón Style III is a 3-ply opaque shade fabric consisting of vinyl, fiberglass, and a proprietary coating for maximum blackout. Thread Count: 59 threads per square inch. Fire rating: NFPA 701-2019 Test Method 1. Environmental Benefits: ASTM D3335 85a - Lead Testing. Bacterial and fungal resistance: ASTM Method G-21-15 – Resistance to Fungi. Opaque, .0131 inches thick, 12.8 oz/square yard.
			4. Flocké® by Mermet®: Opaque, PVC-free fiberglass textile with acrylic flocked backing. Antistatic treated. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. Draper shades made with this fabric are GreenSpec® listed. Opaque, .020 inches thick, 15.93 oz/square yard.
			5. SheerWeave® Series SW7000 Blackout by Phifer®: PVC-free polyester with acrylic foamed backing. Fire rating: California U.S. Title 19 (small scale), BS 5867 Part 2 Type B Performance, IBC Section 803.1.1 (Class A Rating), NFPA 101 (Class A Rating), NFPA 701 TM#1 (small scale), CAN/ULC-S 109 (large and small scale), CAN/CGSB2-4. 162-M80. Bacteria and fungal resistance: ASTM G21, AATCC 174-1998 Part II and III. Environmental certification: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101 and ANSI/WCMA A 100.1-2007 for lead content. Draper shades made with this fabric are GreenSpec® listed. Opaque, .030 inches thick, 13.92 oz/square yard.
			6. SheerWeave® Series SW7100 Blackout by Phifer®: PVC-coated Fiberglass laminated with a 2-ply PVC film. Fire rating: NFPA 701 TM#1 (small scale), NFPA 701 TM#2 (large scale), BS 5867 Part 2 Type B Performance, CAN/ULC-S 109 (large and small scale), NFPA 101 (Class B Rating), IBC Section 803.1.1 (Class B Rating). Bacteria and fungal resistance: ASTM E 2180, ASTM G21, ASTM G22, AATCC30 Part 3, ASTM D 3273, GREENGUARD® Mold and Bacteria Standard ASTM 6329; Style 2000 face includes Microban® antimicrobial additives. Environmental certification: Certified to GREENGUARD and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe Use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101, ANSI/WCMA A 100.1-2007 for lead content and REACH (EC 1907/2006) compliant. Opaque, .025 inches thick, 21.6 oz/square yard, opaque.
			7. SheerWeave® Series SW7400 by Phifer®: PVC-free polyester with acrylic foamed backing. Fire rating: California U.S. Title 19 (small scale), CAN/ULC-S 109 (large and small scale), CAN/CGSB 2-4. 162-M80, NFPA 701 TM#1 (small scale), NFPA 701 TM#2 (large scale). Bacteria and Fungal Resistance: ASTM G21-96, AATCC 174-1998 Part II and III. Environmental Certification: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe Use: RoHS/Directive 2002/95/EC, ANSI/WCMA A 100.1-2007 for lead content, US Consumer Product Safety Commission Section 101. UV Protection: Seal of Approval by the Melanoma International Foundation (MIF) for effectiveness in preventing sun damage to the skin or eyes. Opaque, .029 inches thick, 12.53 oz/square yard.
			8. SheerWeave® Series SW7500 by Phifer®: PVC-free polyester with an acrylic coating. Fire rating: California U.S. Title 19 (small scale), NFPA 101 (Class A Rating), NFPA 701 TM#1 (small scale), BS 5867 Part 2 Type B Performance, CAN/ULC-S 109 (large and small scale), IBC Section 803.1.1 (Class A Rating), CAN/CGSB 2-4.162-M80. Bacterial and fungal resistance: ASTM E 2180 and ASTM G21. Environmental certification: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, US Consumer Product Safety Commission Section 101 and ANSI/WCMA A 100.1-2007 for lead content. Opaque, .016 inches thick, 12.14 oz/square yard.
			9. SheerWeave® Series SW7600 by Phifer®: PVC-free polyester with an acrylic foamed backing. Fire rating: California U.S. Title 19 (small scale), NFPA 701 TM#1 (small scale), BS 5867 Part 2 Type B Performance, CAN/ULC-S 109 (large and small scale). Bacteria and fungal resistance: ASTM G21-96, AATCC 174-1998 Part II and III. Environmental certification: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. Safe use: RoHS/Directive 2002/95/EC, ANSI/WCMA A 100.1-2007 for lead content, US Consumer Product Safety Commission Section 101. UV protection: Seal of approval by the Melanoma International Foundation (MIF) for effectiveness in preventing sun damage to the skin or eyes. Opaque, .020 inches thick, 11.8 oz/square yard.
			10. Avila Twilight™ by Mermet®. 37.5 percent Polyester and 62.5 percent acrylic with foam backing. Duraguard fabric protector and Sanitized Antimicrobial Protection. Plain weave that is 100% PVC free. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. 0% open, .020 inches thick, 14.5 oz/square yard.
			11. Vizela™ < 1% by Mermet®: 100 percent fiberglass with an EVA coating and PVC free. Fire rating: NFPA 701-10 TM#1, California U.S. Title 19, CAN/ULC-S109-03 Small & Large Flame Test. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Bacterial and fungal resistance: ASTM E2180, ASTM G21. < 1% open, .013 inches thick, 8.7 oz/square yard.
			12. Soltis® Opaque B92 by Serge Ferrari®. PVC-coated polyester with silver backing on outside and pre-tensioning process for dimensional stability. Fire rating: Method 1 and 2/NFPA 701, Class A / ASTM E84. Environmental Benefits: Certified to GREENGUARD® and GREENGUARD Gold® standards for low chemical emissions into indoor air during product usage. RoHS compliant – lead free. Recyclable through TexyLoop. 0 percent open, .0312 inches thick, 19.1 oz/square yard.

\*\* NOTE TO SPECIFIER \*\* Refer to Draper product literature for available shade fabric colors and patterns. Select fabric colors and patterns from the following, delete those not applicable.

* + 1. Color and pattern: \_\_\_\_\_\_\_\_\_\_, No. \_\_\_\_\_.
		2. Color and pattern: As indicated in Color Schedule on Drawings.
		3. Color and pattern: As selected by Architect from manufacturer's standard range.
1. EXECUTION
	1. EXAMINATION
		1. Do not begin installation until substrates have been properly prepared.
		2. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
	2. PREPARATION

\*\* NOTE TO SPECIFIER \*\* Include one of the following paragraphs. Delete if not applicable.

* + 1. Coordinate requirements for blocking and structural supports to ensure adequate means for installation of window shades.
		2. Coordinate requirements for blocking, construction of shade pockets, and structural supports to ensure adequate means for installation of window shades.

\*\* NOTE TO SPECIFIER \*\* Include one or more of the following paragraphs for window shades with headboxes recessed in ceilings. Delete those not applicable.

* + 1. Coordinate installation of recessed shade pockets with construction of suspended acoustical panel ceilings specified in Section 09510.
		2. Coordinate installation of recessed shade pockets with construction of suspended gypsum board ceilings specified in Section 09260.
		3. Coordinate requirements for power supply conduit, and wiring required for window shade motors and controls.
	1. INSTALLATION
		1. Install in accordance with manufacturer's instructions.
		2. Install roller shades level, plumb, square, and true. Allow proper clearances for window operation hardware.

\*\* NOTE TO SPECIFIER \*\* Draper Type D FlexShade Pockets are designed to be installed prior to or as part of ceiling system installation. Shade and operating mechanism can be site installed in pockets after construction operations that might damage shade are complete. If pockets are to be installed. Include the following paragraph as applicable and delete if not applicable.

* + 1. Shade pockets:
			1. Install shade pockets prior to installation of suspended ceiling system. Attach to supporting structure with screws through top of pocket at 24 inches (610 mm) minimum centers.
			2. Install shade pockets in conjunction with installation of suspended ceiling system. Attach to supporting structure with screws through top of pocket at 24 inches (610 mm) minimum centers.
			3. Install corner pieces securely and in alignment with pockets.
			4. Install pocket ends securely and in alignment with pockets.
			5. After interior construction is essentially complete, install shade and operating mechanism in pocket.

\*\* NOTE TO SPECIFIER \*\* Include the following paragraph if fascia or separate closure for site constructed recess is being provided. Note fascia is not applicable if pockets are being provided. Delete if not applicable.

* + 1. Position shades level, plumb, and at proper height relative to adjacent construction. Secure with fasteners recommended by manufacturer.
	1. TESTING AND DEMONSTRATION
		1. Test motorized window shades to verify that controls, limit switches, interface to other building systems, and other operating components are functional. Correct deficiencies.
		2. Test window shades to verify that operating mechanism, fabric retainer, and other operating components are functional. Correct deficiencies.
			1. Motorized operating mechanism.
		3. Demonstrate operation of shades to Owner's designated representatives.
	2. PROTECTION
		1. Protect installed products until completion of project.
		2. Touch-up, repair or replace damaged products before Substantial Completion.
	3. SCHEDULES

\*\* NOTE TO SPECIFIER \*\* Retain Paragraph below to suit project requirements. Identify products by name on the Drawings or alternately use this paragraph to define the location of each type of material to be used. Delete if not required.

* + 1. Refer to Drawings for shade types and locations.

END OF SECTION