



## 1. Product Name

- Herculite Excel M Series

## 2. Manufacturer

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## 3. Product Description

### Basic Use

Herculite Excel M Series is an American made, new architectural textile featuring both flexibility and core fabric stability for fabric structures of all sizes.

The Excel M Series utilizes a hybrid construction technology that provides both the chemical bond found in typical coated fabrics and the superior mechanical bond achieved in composite lamination. Excel M Series is 40 percent stronger in tensile strength and has a 400 percent stronger tear strength than many of the imported coated PVC fabrics.

Excel M Series is the architectural choice for the most demanding large textile structure projects. Offering outstanding performance, value and durability as well as a broad palette of dramatic color choices. Excel M Series awning fabric provides an appealing non-plastic look with a satin surface, and dimensional stability needed to create architectural canopies that make bold statements about the facilities where they are used.

Excel M Series is surface coated with the new M Series RainKleen® finish. This surface coating over stabilized PVC offers exceptional surface abrasion and scratch resistance. This specially formulated and proprietary top coating helps prolong fabric life and preserve its color intensity. It also acts as a barrier between the fabric and applied vinyl graphics. This barrier prevents plasticizer migration, which is the leading cause of pressure-sensitive graphics failure. Other decoration methods include solvent based digital printing, heat transfer films, heat sealed and inset vinyls, appliqué, screen printing and hand painting.

Additionally, the special proprietary PVC film formulation resists scratching and eliminates installation related damage, to give the finished awning structure the best possible look and most favorable impact.

Excel M Series is 100 percent waterproof, flame retardant, heat and RF sealable, this technology textile is well suited for architectural specification in commercial and residential awning structures alike. It's designed to protect people and furnishings



from weather while maintaining an architectural fabric statement of sustainability.

The Excel M Series brand awning fabrics are presented in thirteen designer solid colors.

### Composition and Materials

Excel M Series consists of the following five layers:

1. Face layer PVC film formulation package
2. PVC-based high flex multi-functional adhesive
3. Core stabilized polyester fabric
4. PVC-based high flex multi-functional adhesive
5. Reverse layer PVC film formulation package

### Features and Benefits

- SPF 50+
- Waterproof
- Made in America
- 13 vibrant colors and patterns
- Age, fade, dirt and mildew resistant
- Eight-year manufacturers limited warranty
- Can be sewn or welded using heat, radio frequency, solvent, hot air or wedge welded
- Waterproof, dimensionally stable; no shrinkage, stretch, sagging, pocketing or leakage common to woven awning fabrics
- Accepts most types of applied pressure sensitive graphics.
- Flame retardant; CSFM Title 19, NFPA 701, ASTM E84 Class A, M2
- RainKleen® Finish coated for prolonged fabric life and enhanced cleanability

### Sizes

Rolls of up to 50 yards are 62 inches wide.



## Colors

The Excel M Series brand fabrics offer 13 architectural solid colors.

- Medium Blue XL 5046
- Navy XL 5047
- Dark Blue XL 5012
- Red XL 5026
- Burgundy XL 5015
- Rust XL 5009
- Glade Green XL 5011
- Sand XL 5000
- Tan XL 5038
- Ivory XL 5039
- Black XL 5045
- Sail White XL 5090
- Translucent White XL5088

Excel M Series color chart available [here](#).

## 4. Technical Data

### Applicable Standards

#### ASTM International

- **ASTM E 84** Class A Rating Standard Test Method for Surface Burning Characteristics of Building Materials

#### National Fire Prevention Association (NFPA)

- **NFPA No. 701**

### Approvals

- **California Administrative Code Title 1 Public Safety Section 1237**
- **California State Fire Marshall (CSFM) registered**

### Environmental Considerations

A building with awnings and shades may qualify for LEED® points.

## Vinyl and the Environment

Vinyl is energy efficient. Vinyl takes 20 percent less energy to produce than many competing products. Vinyl uses 50 percent less energy than polyester and 670 percent less energy than PLA which is derived from corn. Vinyl is lightweight and requires less fuel and generated lower emissions to transport. Herculite's high performance textiles used in sun control applications reflect solar energy creating a shade environment that reduces cooling costs by 17–24 percent depending on geographic location.

Vinyl is inherently recyclable generating one billion-plus pounds of post-industrial recycling annually. Because of its durability and long useful life as compared to plastic bottles, vinyl generated substantially less material to be carted off to landfills and the like each year. Vinyl contributes to a smaller carbon footprint because it uses less fuel and emits less carbon dioxide, (CO<sup>2</sup>), than alternatives for example, vinyl consumes 24 percent less oil than polyethylene, 37 percent less than polyester, 86 percent less than nylon and 204 percent less than aluminum. Vinyl also has lower CO<sup>2</sup> emissions: vinyl generated 30 percent less CO<sup>2</sup> than polyethylene, 120 percent less than polyester and 260 percent less than aluminum.

## 5. Installation

Some of the most common methods used for seaming Excel M Series Architectural Awning Fabric:

### Hot Air Welding

This process of vinyl welding involves the use of hot air—varying from 200 to 600 degrees C or more—to weld two layers of fabric.



A nozzle is inserted into the space between the two layers and the hot air is blown inside. Once the surfaces are hot enough, the layers are pressed together using pinch rollers. The weld is created once the rollers are finished pinching the fabrics together.

#### **Radio Frequency Welding**

Also known as high frequency or dielectric welding; uses radio waves to create heat.

#### **Solvent Welding**

In this process, chemical solvents are used to create a seam. The solvent is placed along the surface of the fabrics and allowed to rest for a short period of time. The solvent's chemicals break down or soften the fabrics. Once the fabrics are soft enough, pressure is applied to create the seam.

#### **Wedge Welding**

Two pieces of fabric are passed through a wedge. The wedge is heated and as the fabrics move along, a roller is used to press them together; a seam is created.

#### **Sewing Using Polyester or Teflon Thread**

The seam is created using a sewing machine. Proper thread selection is critical especially when outdoor applications are subject to harsh weather elements. Polyester and Teflon threads offer strength and durability.

## **6. Availability and Cost**

### **Availability**

Excel M Series is readily available with inventory strategically located throughout the United States.

### **Cost**

Cost information can be obtained from the manufacturer or distributor of Excel M Series.

## **7. Warranty**

Excel M Series carries an eight-year limited manufacturer's warranty. Complete warranty terms and conditions are available from Herculite Products Inc.

Excel M Series Warranty information available [here](#).

## **8. Maintenance**

Excel M Series Architectural Awning Fabric is a polyester reinforced PVC fabric that will provide many years of satisfactory service. It is waterproof, flame, mildew, stain and dirt resistant. The Rain Kleen® Fluoropolymer surface treatments further enhance longevity and ease of maintenance. Properly fastened to the frame, it will retain its trim fit as well as its protective function and aesthetic value. Since no industrial textile is impervious to all hazards, periodic and proper maintenance is important if maximum life of the product is to be realized. Detailed care and cleaning instructions can be obtained from the manufacturer or distributor of Excel M Series Architectural Awning Fabric.

Excel M Series Care and Cleaning information available [here](#).

## **9. Technical Services**

Detailed information, product samples and literature, test results, project lists and assistance in preparing specifications are available through Herculite Products, Inc.

For questions about specifications, code regulations, product usage or product installation, please call Herculite Products, Inc. or visit our website: [www.herculite.com](http://www.herculite.com).

## **10. Filing Systems**

- ConstructConnect
- Additional product information is available from the manufacturer upon request ↪