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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# Daylighting Film DF2000PE

## Product Description

3M™ Daylighting Film DF2000PE is a polymeric film providing specular reflection with greater than 99% luminous reflectivity. This metal-free, non-corroding and non-conducting film is well-suited for daylighting applications. It has a pressure-sensitive adhesive for a secure bond and a polyethylene liner to protect its reflective surface during installation.

## Recommended End Uses

Film DF2000PE may be used for a variety of commercial and residential applications.

### Unsuitable End Uses

- Exposure to:
  - Sunlight radiation wavelengths less than 380 nm
  - Abrasive conditions, which may scratch the film

## Characteristics

These are typical values for unprocessed product; processing may change the values. Contact your 3M representative for a custom specification.

## Product Availability

The product is available in a 5 sheet kit, 24" x 36" (75-3472-0333-5). To inquire about product availability in other formats, please contact your customer service representative at the number below.

### Optical Characteristics

Characteristic	Value	Test
Luminous Reflectivity	> 99%	ASTM E1164-02/ E308-01
Color a* b*	-2 < a* < 2 -2 < b* < 2	ASTM E1164- 02/E308-01
Bandwidth, 90% Reflectivity (0 to 80° angle of incidence)	400 to 775 nm	3M
Wavelengths Transmitted (0 to 80° angle of incidence)	> 775 nm	3M
Wavelengths Absorbed	< 400 nm	3M
Usage Angle	0 to 90 degrees	3M

### Physical Characteristics

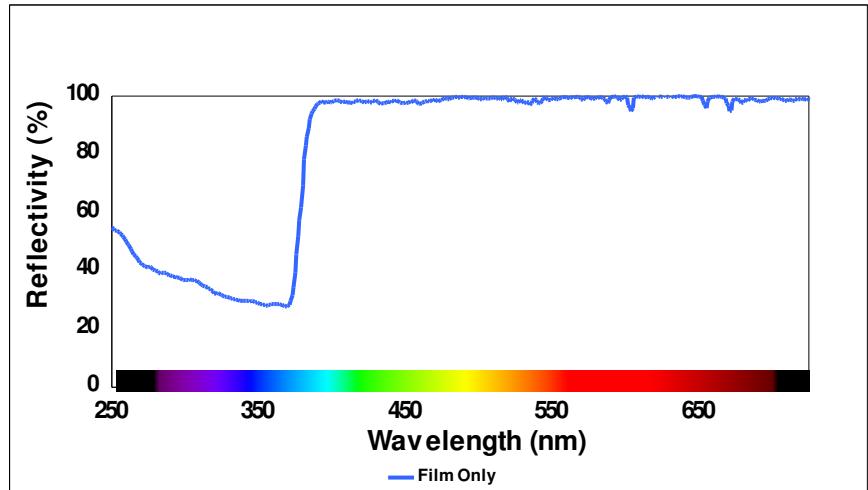
Characteristic	Value	Test
Film	Polymeric film	-
Liner, Adhesive	Polyester	-
Liner, Protective	Polyethylene	-
Adhesive	Pressure-sensitive	-
Width Film and Liners Adhesive	51 inches (130 cm) > 49 inches (125 cm )	-
Total Thickness (nominal)	6.1 mils (155 μm)	3M

Film	2.6 mils (66 $\mu\text{m}$ )	
Adhesive	1.5 mils (38 $\mu\text{m}$ )	
Liner, Adhesive	0.9 mils (23 $\mu\text{m}$ )	
Liner, Protective	1.1 mils (28 $\mu\text{m}$ )	
Total Density (film, adhesive and liners)	25 sq ft/lb (5 $\text{m}^2/\text{kg}$ )	3M

### Physical Characteristics, *continued*

Characteristic	Value	Test
Tensile Strength (film)	> 35 lb/in (6.2 kg/cm)	ASTM D-882
Elongation at Break (film)	> 60%	ASTM D-882
Modulus (film)	> 550 lb/in <sup>2</sup> (39 kg/cm <sup>2</sup> )	ASTM D-882
Heat Shrinkage (film)	< 1% at 302°F (150°C), 15 minutes	ASTM D-1204-02

### Typical Normal Angle Spectral Response



### Application Characteristics

Characteristic	Description
Surface Type	Flat and simple curved surfaces
Substrate Type	<ul style="list-style-type: none"> <li>Laminated on any substrate the user tests and approves</li> <li>Cold formed on aluminum sheeting</li> </ul>
Application Temperature	72°F (22°C) <i>minimum</i>

### Handling and Fabrication



Before using any equipment, always follow the manufacturers' instructions for safe operation.

**Handling.** Since a roll of this film typically weighs more than 1000 pounds (454 kg), lifting equipment is required when handling the film.

Application Temperature. 72°F (22°C) *minimum*

**Protective Liner.** To prevent scratching or marking the film's reflective surface, do not remove the protective liner until all fabrication and installation processes are finished. When ready, carefully remove the liner.

**Lamination.** This film can be applied with a roll laminator. Use a dry application method only. Keep the protective liner on the film during the entire lamination process.

## **Cleaning**

Do not attempt to dust or clean the film. This can damage the film's reflective surface.

## **Shelf Life, Storage and Shipping**

Shelf Life      One year.

## Storage Conditions

- 40° to 100°F (4° to 38°C)
- Out of sunlight
- Clean dry area
- Original container

## Product Use

The user is solely responsible for evaluating and determining whether this 3M product is suitable and appropriate for any particular use or manufacturing process in which it may be used.

## Technical Information

Technical information and data, recommendations, and other statements provided by 3M are based on information, tests, or experience which 3M believes to be reliable, but the accuracy or completeness of such information is not guaranteed. Such technical information and data are intended for persons with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. The typical values shown should not be used for the purpose of specification limits. If you have questions about this product, contact the Technical Service helpline at 1-800-328-3908.

## Warranty Information

### Warranty and Limited Remedy

3M warrants that this 3M Product will conform to 3M specifications for the product at the time of shipment to the Buyer. **3M makes no other warranties, express or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose or implied warranty arising out of a course of dealing, custom, or usage of trade.** If a 3M Product is found not to conform to this warranty within one year of date of Product receipt, **Buyer's exclusive remedy, at 3M's option, shall be to refund the purchase price of, or replace the quantity of 3M Product shown to be nonconforming.** 3M has no obligation under this warranty with respect to 3M Product that has been modified or damaged through misuse, abuse, accident, neglect, or mishandling by Buyer.

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## Bulletin Change Summary

New Writeup.



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