

## Product Description

3M™ FASARA™ Whiteboard Film WH-111-G, the “Product”, is a unique glass film with a writable and erasable surface that can be used to convert interior glass surfaces into creative, collaborative environments. The Product has a pressure-sensitive adhesive that allows installation on virtually any glass surface.

## Featured Benefits

- Superior anti-ghosting performance
- Flexible, durable polyester
- Suitable for use in offices, schools, healthcare and other interior environments
- Can be installed on interior glass and many smooth surfaces. For application on other interior surfaces, use 3M™ DI-NOC™ Whiteboard Film WH-111.
- Meets U.S. building regulations for flammability resistance
- Abrasion, stain and chemical resistant
- Compatible with most standard dry erase markers and erasers
- Expected Performance Life is 5 years for vertical, indoor applications on non-perimeter glass.

## Product Characteristics

The values in this table are typical, and are based on test data deemed reliable but are not warranted.

Characteristic		Value
Material	Film	Polyester
	Adhesive	Pressure-sensitive acrylic, permanent
	Release Liner	Silicone-coated polyester
Thickness	Film + Adhesive	5.9 mils (150 microns) not including release liner
	Release Liner	1 mil (25 microns)
Maximum Roll Size		49.2 in. x 98 ft. (1250mm x 30 m)
Maximum Weight		28 lb. (12.4 kg) (approx.) for a 30 m roll

## Product Performance

The values in these tables are typical, and are based on test data deemed reliable but are not warranted.

Characteristic	Results
Adhesion 24 hours after application*	Glass: 1.6 lb/in. (7N / 25mm)
Abrasion Resistance	Abraded 10 strokes with steel wool under a load of 0.5kg No noticeable scratches
Fire Resistance	When used in Interior Applications, the Product has the National Fire Protection Association Class A rating (as defined in NFPA 101 “Life Safety Code” Test Method ASTM E84).

\* Test specimens were applied to the substrate and conditioned at 68 F (20 C), then peel tested at 180 degree at a tensile speed of 12 inches (300 mm) per minute.

### Stain Resistance

Characteristic	Evaluation	Results
<b>Stain and Chemical Resistance</b>	Direct contact for 18 hours with the following substances:	No permanent staining
	<ul style="list-style-type: none"> <li>● Salt water (5%)</li> <li>● Household Ammonia</li> <li>● Soapy Water (1%)</li> <li>● Neutral Cleaner</li> <li>● Hydrochloric Acid (10%)</li> <li>● Ethyl Alcohol (50%)</li> <li>● Formalin (36%)</li> <li>● Milk</li> <li>● Coffee</li> <li>● Tea</li> <li>● Wine</li> <li>● Vinegar</li> <li>● Ketchup</li> <li>● Oleic Acid/Vegetable oil</li> </ul>	

The above data are representative values and are not guaranteed.

### Product Use

The user is solely responsible for evaluating and determining whether these 3M Products are suitable and appropriate for any particular use or manufacturing process in which they may be used.

#### Consider These Factors in Determining the Suitability of the Product

- For interior use only.
- Recommended for application to smooth glass surfaces only.

**NOTE:** Application to smooth application surfaces, such as acrylic, may be possible. However, plastic materials may outgas, causing the film to bubble or peel. Outgassing is the release of a gas as certain plastics or coated surfaces dry and cure. This occurs over a period of time, but not indefinitely. Product that is applied to a surface that is still outgassing will develop air bubbles in the Product that may appear some time after the installation. 3M assumes no liability for bubbles that appear in the applied Product due to outgassing.

- Recommended for flat or slightly curved surfaces only.
- Product is not intended for electronic cutting.
- The Product has an erasable surface layer that makes it unsuitable for printing.

### Application and Removal Guidelines

The values in these tables are typical, and are based on test data deemed reliable but are not warranted.

Characteristic	Value
<b>Application Surface Type</b>	Glass
<b>Application Location</b>	Interior
<b>Application Temperature</b>	54 °F - 100 °F (12 °C - 38 °C) air and application surface
<b>Application Method</b>	Wet application
<b>High Humidity Environments</b>	Products are not recommended for Interior Applications where condensation consistently occurs.
<b>Product Removal</b>	Low heat, 3M™ Citrus Base Cleaner or 3M™ Adhesive Remover Citrus Base and scraper

### Installation Considerations

Use wet application technique as described in the 3M™ FASARA™ Glass Finishes Installation Guide. In addition, please consider the following:

- Always handle the Product with care.
- The Product edges may be sharp; use caution when handling.
- Avoid scratching or denting the surface during installation as this may affect writing performance.
- Before setting the adhesive to the application surface:
  - Ensure proper alignment by using a guideline. Allow additional material for trimming as necessary.
  - Ensure that the entire surface of the film is flat against the application surface and the ends of the film do not sag.
- Stretching or attempting to reposition the Product during application may deform, buckle, or ripple the Product.
- Wrinkles created during application cannot be removed with heat due to polyester construction.
- Seams tend to accumulate ink from the markers. Make seams as tight as possible.

### Removing the Product

Removing the Product too quickly can result in excessive adhesive left on the application surface. If necessary, heat a small section of the Product with a heat gun to soften the adhesive, peel back slowly, then heat and remove the next section.

If any adhesive remains on the application surface, it can be easily cleaned with a product such as 3M™ Citrus Base Cleaner or 3M™ Adhesive Remover Citrus Base.

### Using the Product as Whiteboard

- Most standard dry erase markers for whiteboard are suitable for writing on the Product.
- Erase writing as soon as possible using 3M™ Microfiber Cleaning Cloth or 3M™ Post-it® Dry Erase Cleaning Cloth or soft paper towels as needed.

**NOTE:** DO NOT use whiteboard cleaning wipes or any other cleaning wipes. Rigid, flat erasers are not recommended.

- To prevent ink debris from sticking to the Product (i.e. ghosting), use 3M™ Microfiber Cleaning Cloth or 3M™ Post-it® Dry Erase Cleaning Cloth or soft paper towels with water or whiteboard cleaning spray as needed to pick up the ink debris. Wash or replace cleaning clothes often.
- NEVER use permanent markers or felt pens. Only use select dry erase markers for writing on the Product.
- If a non-specified marker is accidentally used, write over the non-specified mark with a dry erase marker, then wipe it off immediately using the maintenance method below.

**NOTE:** Upon initial use, the dry erase marker ink may not adhere well to the Product surface. Writing with a dry erase marker and erasing several times will "break-in" the surface.

### Maintenance

- Erase content from the Product as soon as it is no longer needed.
- When needed to remove buildup of ink debris, clean the surface using many soft paper towels to wipe the ink debris away and liberal use of water. Add a few drops of mild detergent, such as baby shampoo, for more effective cleaning.

### Shelf Life and Storage

#### Shelf Life

Apply the Product within 1 year of the date of purchase. The storage conditions specified in this document must be maintained for full shelf life.

#### Storage Conditions

- 40 °F - 90 °F (4 °C - 32 °C)
- Away from direct sunlight and high humidity
- Clean, dry area
- Original container with end caps, in the plastic sleeve, stored horizontally, a maximum of 6 cartons high
- Bring the Product to room temperature before application

### Health and Safety

#### CAUTION

When handling any chemical products, read the manufacturers' container labels and the Safety Data Sheets (SDS) for important health, safety and environmental information. To obtain SDS sheets for 3M products go to [3M.com/SDS](http://3M.com/SDS), or by mail or in case of an emergency, call 1-800-364-3577 or 1-651-737-6501.

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

#### WARNING

##### **To reduce the risks of personal injury and/or property damage associated with glass breakage:**

A glass surface covered by a film with areas of high opacity or dark-colored ink will absorb more heat than other glass surfaces when exposed to sunlight. Heat absorption can create thermal expansion that could result in glass breakage or cracking. Do not use a film with areas of high opacity or dark-colored ink on glass surfaces with significant exposure to sunlight.

### 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 1-888-650-3497.

### LEEDv4 Credits

This section describes some of the options for acquiring LEED credits using 3M™ Glass Finishes.

**NOTE:** Each application is different. It is the sole responsibility of the end user to evaluate and determine whether LEED credits can be acquired.

#### ID+C MR Credit, Interiors Life-Cycle Impact Reduction

- Option 1: Interior Reuse - Product can be used to refinish salvaged, refurbished, or reused building materials

#### ID+C, BD+C EQ Credit, Low-Emitting Materials

- Product has been tested to and is in compliance with the General Emissions Evaluation (California Department of Public Health (CDPH) Standard Method V1.1-2010)

#### ID+C, BD+C EQ Credit, Daylight

- Product can be used to enable daylight in enclosed spaces

#### BD+C MR Credit, Building Life-Cycle Impact Reduction

- Option 3: Building and Material Reuse - Product can be used to refinish salvaged, refurbished, or reused building materials

#### O+M MR Credit, Purchasing - Facility Maintenance and Renovation

- Product can be used to refinish salvaged, refurbished, or reused building materials
- Product has been tested to and is in compliance with the General Emissions Evaluation (California Department of Public Health (CDPH) Standard Method V1.1-2010)

## BUILDING PRODUCT DISCLOSURE AND OPTIMIZATION INFORMATION

### Environmental Product Declaration (EPD) or Life Cycle Analysis (LCA)

EPD and/or LCA information not available.

### Raw Material Source and Extraction Reporting

Raw Material source and extraction information for this product is considered to be 3M confidential and is therefore not available.

### Extended Producer Responsibility

Take-back or recycling program for this product is not available.

### Bio-based Materials

Product have not been tested to ASTM D6866.

### Wood Products

Product does not contain wood-based materials.

### Materials Reuse

Product can be used to refinish salvaged, refurbished, or reused building materials.

### Recycled Content

Product does not contain pre- or post-consumer recycled content.

## WARRANTY

### Product

3M FASARA Whiteboard Film WH-111-G (the "Product").

### 3M Basic Product Warranty

The Product(s) specified in this document are warranted to be free of defects in materials and manufacture ("3M Basic Product Warranty") at the time of shipment ("Warranty Period") by 3M or its authorized distributor.

### Limited Warranty

- For Products used in Interior Applications in the United States, 3M makes the following warranty (the "3M Limited Warranty") for the applicable time period stated below ("Warranty Period"), which will begin on the earlier of: (a) Product installation date; or (b) six months after 3M's Product shipment date.

The Product will have no significant discoloration, cracking or other similar visual defects. This warranty does not cover stains due to use of non-whiteboard markers or surface damage due to improper cleaning.

Application	Warranty Period
Interior Applications with no direct UV exposure <sup>1</sup>	3 years
Exterior application surfaces <sup>2</sup>	Not warranted

**1 - Applications with direct UV exposure are not warranted.**

**2 - Application of the Product to exterior application surfaces is not warranted.**

- For a buyer's convenience, 3M may provide engineering or technical information, recommendations, installation instructions or guides, and other information or materials relating to a Product ("Other Product Information"), but 3M makes only the 3M Basic Product Warranty and the 3M Limited Warranty, and does not warrant any Other Product Information.
- 3M has no obligation under the 3M Basic Product Warranty or the 3M Limited Warranty as to Product that has been: (a) modified, altered or processed in any manner; (b) stored, applied, installed, or used in a manner other than that 3M recommends in this document and in all Other Product Information; (c) damaged through contact with a person or thing, misuse, accident, neglect, or other action by anyone other than 3M; (d) improperly installed, including, without limitation, installation after the expiration the Product's shelf life or installation without proper surface preparation, or (e) exposed to excessive heat, humidity, dirt or UV light.
- EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, THE 3M BASIC PRODUCT WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES, RIGHTS OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY, SATISFACTORY QUALITY, FITNESS FOR A PARTICULAR PURPOSE AND THOSE ARISING FROM A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. THE BUYER IS RESPONSIBLE FOR DETERMINING IF A PRODUCT IS SUITABLE FOR ITS PARTICULAR PURPOSE AND APPLICATION METHODS.
- 3M must receive any 3M warranty claim in writing no later than 10 business days after (a) the end of the Warranty Period or (b) the discovery of the 3M warranty claim, whichever is earlier.

## Limited Remedy

IF ANY PRODUCT IS PROVEN NOT TO HAVE MET THE 3M BASIC PRODUCT WARRANTY OR THE 3M LIMITED WARRANTY DURING THE WARRANTY PERIOD, THEN THE BUYER'S EXCLUSIVE REMEDY, AND 3M'S SOLE OBLIGATION, WILL BE, AT 3M'S OPTION, TO REPLACE THE NONCONFORMING PRODUCT OR TO REFUND THE NONCONFORMING PRODUCT'S PURCHASE PRICE.

## No Extension of Warranty

In the case of an approved warranty claim, the replacement Product will carry only the remaining term of the original warranty period.

## Limitation of Liability

3M WILL NOT UNDER ANY CIRCUMSTANCES BE LIABLE TO A BUYER FOR DIRECT (other than the Limited Remedy stated above), SPECIAL, INCIDENTAL, INDIRECT OR CONSEQUENTIAL DAMAGES (INCLUDING, WITHOUT LIMITATION, LOSS OF PROFITS) IN ANY WAY RELATED TO THE PRODUCT, THE TECH DATA SHEET OR OTHER PRODUCT INFORMATION, REGARDLESS OF THE LEGAL OR EQUITABLE THEORY ON WHICH SUCH DAMAGES ARE SOUGHT.

### Commercial Solutions

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