



## Product Description

3M™ DI-NOC™ Architectural Finishes Abrasion Resistant AR Series (the “Products”) are decorative surface finishes for interior applications in high-traffic areas. The abrasion resistant top layer reduces the visibility of scratches.

### **i** IMPORTANT NOTE

Please refer to the 3M™ DI-NOC™ Architectural Finishes Installation Guide for additional information.

## Featured Benefits of 3M™ DI-NOC™ Architectural Finishes Abrasion Resistant AR Series

- Interior Applications — Ideal for high-traffic areas where scratches occur, such as elevators, counters, table tops, doors, or columns.
- Reduces visible scratches in high-traffic areas. Scratch debris can be wiped off with a cloth (see Figure 1).
- Application Surfaces — Use on metal, wood, glass and complex curved (3D) surfaces.
- Aesthetics — New matte technology gives the realistic appearance of natural materials for select designs (see Figure 2).
- Remodel and Reuse — Shortens refurbishment downtime, and brings life to existing assets.
- Easy Application — 3M™ Comply™ Adhesive technology virtually eliminates bubbles, simplifying and speeding application (see Figure 3).

## Product Characteristics

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

Characteristic		Value
Material	Film	Vinyl with abrasion resistant top surface
	Adhesive	Pressure-sensitive acrylic, permanent
	Release Liner	Silicone-coated poly paper
Thickness	Film + Adhesive	9.5 mils (240 microns) nominal, not including release liner. Some designs vary slightly in thickness due to embossing
	Release Liner	6.2 mils (157 microns)
Maximum Roll Size		48 in. X 82 ft. (1,220mm x 25m)
Maximum Weight		55 lb. (25 kg) (approx.) for an 82 ft. (25m) roll

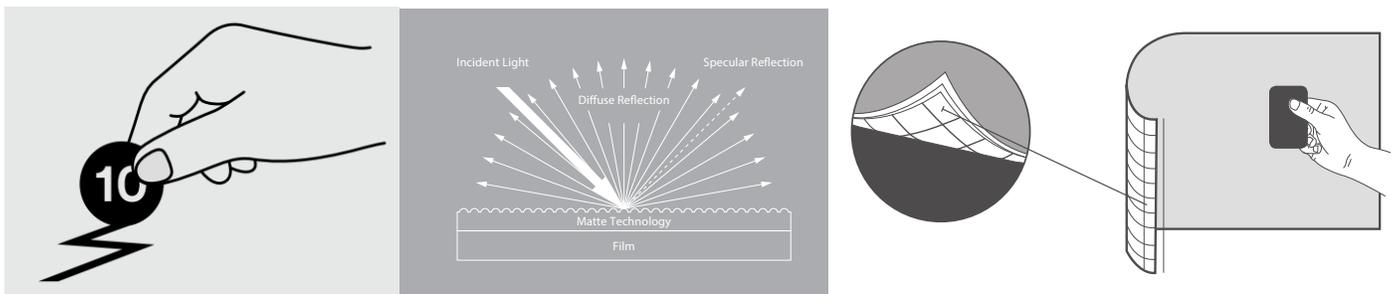


Figure 1 (L): DI-NOC™ Abrasion Resistant AR Series reduces visible scratches in high-traffic areas.

Figure 2 (C): New Matte Film Technology

Figure 3 (R): 3M™ Comply™ Adhesive Technology with Air-Release Channels

# 3M™ DI-NOC™ Architectural Finishes Abrasion Resistant AR Series

## Product Performance

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

Characteristic	Evaluation	Results
<b>Surface Abrasion Resistance</b>	Rotary Taber® Abrader CS-17 wheels, resurfaced each 2000 cycles, 1 kg load	No significant visible scratches after 8000 cycles
<b>Scratch Resistance</b>	Pencil hardness 1000g load, 6B (soft) to 9H (hard)	No significant scratches with 9H
<b>Dimensional Stability*</b>	4 in. x 4 in. (100mm x 100mm) crosscut in film, after 2 days at room temperature.	Largest gap: < 0.01 in. (0.3mm)
<b>Heat Resistance*</b>	Aged at 150°F (65°C) for 28 days.	No delamination or visible change
<b>Moisture Resistance*</b>	Aged at 104°F (40°C), 95% humidity for 28 days.	No delamination or visible change
<b>Cold Impact Resistance*</b>	2 lb. (907g) weight dropped from 5 in. (12.7cm) height, at 32°F (0°C) using a Gardner Impact Tester.	No cracks in film
<b>Wear Resistance</b>	ASTM D4060 Rotary Taber® Abrader CS-17 wheels, resurfaced each 500 cycles, 1 kg load	No wear-through of surface finish after 7000 cycles
<b>Fire Resistance</b>	When used in Interior Applications as defined by NFPA 101 "Life Safety Code", Test Method ASTM E84	Class A
<b>Industry-Specific Testing</b>	IMO Certification/USCG Type Approval, Intertek Fire-door, and CAN/ULC-S102.2	Consult 3M Technical Service
<b>Adhesion Force*</b>	Product applied to aluminum plate and conditioned for 48 hours at room temperature, then peel tested at a 180 degree angle, speed 12" (300mm) per minute	5 lbf/in (20N /25mm)

\* Product applied to an aluminum plate

### Surface Abrasion Resistance

When compared to DI-NOC™ Architectural Finishes standard Series, DI-NOC™ Architectural Finishes AR Series has superior Surface Abrasion Resistance when tested using Rotary Taber® Abrader CS-17 wheels, resurfaced each 2000 cycles, 1 kg load. DI-NOC™ Architectural Finishes AR Series has no significant visible scratches after 8000 cycles, whereas DI-NOC™ Architectural Finishes standard Series has no visible scratches after 5000 cycles.

### Scratch Resistance

When compared to DI-NOC™ Architectural Finishes standard Series, DI-NOC™ Architectural Finishes AR Series has superior Scratch Resistance when tested using a Pencil Hardness tester, 1000 g load with 6B (soft) to 9H (hard) pencils. DI-NOC™ Architectural Finishes AR Series has no significant visible scratches after testing with 9H pencil, whereas DI-NOC™ Architectural Finishes standard Series has visible scratches after testing with 9H pencil.

# 3M™ DI-NOC™ Architectural Finishes Abrasion Resistant AR Series

## Stain Resistance

Contaminant was in contact with the film surface for 18 hours and then removed using water or mild detergent. Dilute Isopropyl alcohol may be used for more difficult stains. Results may vary.

Contaminant	Results
Coffee	●
Tea	○
Cola	●
Milk	●
Red Wine	●
Soy Sauce	●
Cooking Oil	●
Vinegar	●
Crayon	○
Saltwater (1%)	●
Soap solution (1%)	●
Ammonia Solution (10%)	●
Hydrogen peroxide water (3%)	●
Citrate Solution (10%)	●
Ethyl Alcohol (50%)	●

- Removed with water
- Removed with mild detergent
- ◐ A little stain remained

## Resistance to Solvents, Cleaners, and other Chemicals

Film was applied to an aluminum plate, left for 72 hours, then immersed in the following chemicals:

Classification	Solvent	Immersion Time	Result
<b>Water</b>	Water	24 hours	No visible change
<b>Acid</b>	Hydrochloric acid (10%)	24 hours	No visible change
<b>Base (Alkali)</b>	Sodium Hydroxide (10%)	24 hours	No visible change
<b>Alcohol</b>	Ethanol	24 hours	No visible change
<b>Ester</b>	Ethyl Acetate	5 minutes	Deterioration observed
<b>Ketone</b>	Methyl Ethyl Ketone	5 minutes	Deterioration observed
<b>Aromatic</b>	Toluene	5 minutes	Deterioration observed

# 3M™ DI-NOC™ Architectural Finishes Abrasion Resistant AR Series

## Product Line - DI-NOC™ Architectural Finishes Abrasion Resistant AR Series Designs

The following DI-NOC™ Architectural Finishes AR Series designs are available with a minimum order quantity of 1 roll.

Fine Wood	Woodgrain	Metallic	Single Color	Stone, Abstract, Leather
FW-233AR	WG-1372AR	CH-1628AR	PS-001AR	AE-1623AR
FW-236AR	WG-7024AR	CH-1629AR	PS-002AR	AE-1623AR
FW-330AR		CH-1630AR	PS-003AR	AE-1636AR
FW-337AR		CH-1631AR	PS-004AR	FA-1526AR
FW-338AR		ME-009AR	PS-005AR	FA-1528AR
FW-625AR		ME-396AR	PS-006AR	FA-1530AR
FW-627AR		ME-431AR	PS-007AR	FA-1678AR
FW-1022AR		ME-432AR	PS-008AR	PT-345AR
FW-1121HAR		ME-433AR		SE-010AR
FW-1122AR		ME-904AR		SE-567AR
FW-1129AR		ME-1466AR		SE-568AR
FW-1130HAR		ME-1467AR		ST-011AR
FW-1138AR		ME-1684AR		ST-736AR
FW-1280AR		ME-1685AR		
FW-1293AR		ME-1781AR		
FW-1294AR		PA-045AR		
FW-1751AR		PA-181AR		
FW-7011AR		PA-183AR		
FW-7017AR		PA-187AR		
		PA-389AR		
		PA-683AR		

# 3M™ DI-NOC™ Architectural Finishes

## Abrasion Resistant AR Series

### 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.

#### Interior Use:

These products are designed for application to interior surfaces.

#### Exterior Use:

These products are not designed for exterior applications.

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

Be sure you understand the unique characteristics of these Products and consider them in determining whether the Product is suitable for your use. Please refer to the 3M™ DI-NOC™ Architectural Finishes Installation Guide for additional information.

1. Substrate texture affects Product adhesion and application ease.
  - Unless the substrate is very smooth, its texture may be visible through the Product.
  - Compounds used to smooth a textured substrate permanently change that substrate.
  - Product removal may damage the substrate or its finish.
2. Application surface conditions affect Product adhesion.
  - Ensure that the existing paint, surface finish, or wall covering has excellent bond to the substrate area where the Product will be applied.
  - Repair, prime and paint the substrate, as needed.
  - An adhesion promoter may be required to increase Product adhesion.
3. Human and environmental conditions
  - Temperature and humidity in recommended range
  - Direct UV light (sunlight)
  - Heating or cooling ducts in close proximity.
  - Unsealed substrates in front of water sources.
  - People or equipment that will be in contact with the Product.

The Product may contain a splice. The location of the splices is marked with a tab along the edge of the Product. The installer will need to determine the impact of the splice and work around it to make the best use of the material layout.

### Factors That Affect Performance Life

The actual performance life of the Product is affected by:

- selection, condition and preparation of the application surface.
- application surface texture.
- application technique.
- angle and direction of sun exposure.
- environmental conditions.
- cleaning or maintenance methods.

# 3M™ DI-NOC™ Architectural Finishes Abrasion Resistant AR Series

## Application and Removal Guidelines

The values in these tables are typical, and are based on test data deemed reliable but are not warranted. See the *3M™ DI-NOC™ Architectural Finishes Installation Guide* for additional information.

Characteristic	Value
<b>Application Surface Type</b>	Smooth, hard, non-porous (sealed) material
<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>	Dry application
<b>High Humidity Environments</b>	Products are not recommended for Interior Applications where condensation consistently occurs, or large changes in humidity occur.
<b>Product Removal</b>	Heat at 176°-212°F (80°-100°C)

## Considerations for Design Selection by Product Series

See the *3M™ DI-NOC™ Architectural Finishes Technical Data Sheet* for information on the Product Series for the selected design. See the *3M™ DI-NOC™ Architectural Finishes Installation Guide* for additional installation information.

## Processing Options

Processing of the Product is on a user test and approve basis only. The user is responsible for results in all processing applications.

### Printing

The Products are not designed for surface printing and have various surface textures. Printing is on a user test and approve basis only. No warranty is made for the quality or durability of printed Product.

### Cutting

Electronic cutting, weeding and application tape with the Product must be used only on a user test and approve basis. The user should consider the following: (1) the type of liner used for the Product is not intended for electronic cutting; (2) there is currently no recommended application tape that adheres properly to the face of the Product to hold cut shapes in place.

## Shelf Life and Storage

### Shelf Life

Apply the Product within 2 years 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

# 3M™ DI-NOC™ Architectural Finishes Abrasion Resistant AR Series

## Cleaning and Maintenance

Regular cleaning will help maintain the appearance of the finish. Use mild detergent and water, and a soft cloth or sponge without abrasives. For difficult stains, spot clean with a diluted Isopropyl Alcohol solution and a soft cloth. Avoid using strong solvents or detergents that are either highly alkaline (pH>11) or acidic (pH<3). Do not use ammonia, chlorine, or strong organic-based cleaning products, polishing or cleaning compound, hard-bristle brushes or electric polishing equipment. Use only clean, nick-free tools and wipe gently.

Problem	Solution
<b>Dust and grit</b>	Wipe with a soft, damp cloth.
<b>Soiled (but not gritty)</b>	Use water and a soft cloth
<b>Heavily Soiled</b>	Clean first using a solution of mild liquid detergent and water, then use clear water. Wipe gently with a soft cloth.
<b>Difficult Stains</b>	Spot clean with 70/30 IPA (70% Isopropyl Alcohol/ 30% Water) cleaning solution

Type of Surface Damage	Appearance of Surface Damage	Method to Reduce Visibility
<b>Mar</b>	Dragging an item, such as a colored briefcase, across the film and leaving a deposit of color on the surface.	Rub with a soft cloth and warm soapy water to remove the mar.
<b>Indentation</b>	Pressing into the film surface without breaking the surface, such as pressure from a chair.	Carefully heat the indentation with a heat gun, which allows the film surface to rebound and reduce visibility.
<b>Scratch</b>	Scratching the surface layer of film leaving a whitish mark on the surface, such as by dragging a sharp rivet from a purse.	Rub with a soft cloth to remove scratch debris.
<b>Gouge</b>	Breaking through the entire film, such as severe impact from sharp chairs or carts.	Repair by cutting out the damaged film and replacing that piece with the same pattern of film or remove and replace an entire panel of film.

# 3M™ DI-NOC™ Architectural Finishes Abrasion Resistant AR Series

## 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](https://www.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.

# 3M™ DI-NOC™ Architectural Finishes Abrasion Resistant AR Series

## LEEDv4 CREDITS

This section describes some of the options for acquiring LEED credits using 3M™ DI-NOC™ Architectural Finishes Abrasion Resistant AR Series.

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

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

- Option 1: Interior Reuse - Product can be used to refinish salvaged, refurbished, or reused nonstructural materials.
- Option 2: Furniture Reuse - Product can be used to refinish salvaged, refurbished, or reused furniture and furnishings.

### ID+C, BD+C MR Credit, Construction and Demolition Waste Management

- Option 2: Product can be used to refinish salvaged, refurbished, or reused interior materials minimizing overall construction waste.

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

- Option 3: Building and Material Reuse - Product can be used to refinish permanently installed interior elements (e.g. walls, doors).

### BD+C MR Credit, Furniture and Medical Furnishings

- Option 3: Multi-attribute assessment of products - Product can be used to refinish permanently installed interior elements (e.g. walls, doors).

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

- Product can be used to refinish permanently installed interior elements (e.g. walls, doors)

## 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 materials and furniture.

### Recycled content

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

### Material Ingredient Reporting

Product ingredient information for this product is considered to be 3M confidential and is therefore not available .

### GreenScreen Benchmark or Cradle to Cradle Certification

Assessment or Certification not available on this product.

# 3M™ DI-NOC™ Architectural Finishes Abrasion Resistant AR Series

## **REACH Optimization**

REACH Substance of Very High Concern certifications are on [3M.com/Regs](https://www.3m.com/Regs) (US) or [3M.com/SVHC](https://www.3m.com/SVHC) (Europe).

## **Product Manufacture Supply Chain Optimization**

Based on our analysis, 3M meets required process and safety requirements as outlined in the criteria.

## **Location Valuation Factor**

Based on supply chain, this product would not meet location valuation factor requirements of being extracted, manufactured, and purchased within 100 miles.

## **Proposition 65**

This Product is developed and commercialized for the purposes of industrial and commercial uses only; therefore, it is not evaluated for compliance with any local, regional, or global consumer regulations. Certain chemicals of this Product are listed by OEHHA for California Proposition 65 under the Safe Drinking Water and Toxic Enforcement Act of 1986.

# 3M™ DI-NOC™ Architectural Finishes Abrasion Resistant AR Series

## Warranty

### Product

3M™ DI-NOC™ Architectural Finishes Abrasion Resistant AR Series (the “Product(s)”) are decorative films for use only in interior applications in commercial buildings (“Interior Applications”).

### 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”) on the date of shipment (“Warranty Period”) by 3M or its authorized distributor.

### Limited Warranty

1. 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 for the applicable time period below:

Application	Warranty Period
Interior Applications	5 years
Exterior application surfaces <sup>1</sup>	Use a 3M™ DI-NOC™ Architectural Finishes EX Series Product <sup>1</sup>

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

2. 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.
3. 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.
4. EXCEPT TO THE EXTENT PROHIBITED BY APPLICABLE LAW, THE 3M BASIC PRODUCT WARRANTY AND THE 3M LIMITED WARRANTY ARE 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.
5. 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

3M Center, Building 220-12E-04  
St. Paul, MN 55144

1-888-650-3497  
3M.com/AMD

© 3M 2020. All rights reserved.

3M, Comply and DI-NOC are trademarks of 3M. Used under license in Canada.

All other trademarks are property of their respective owners.

Revision C, October 2020 Please recycle.

