

3M™ Scotchcal™ Graphic Film

Series IJ16R

1. Product Description

- For Solvent, Eco-Solvent UV and Latex Inkjet Printing and Screen Printing.
- 3.5-4.0 mils monomeric calendared vinyl film.
- Available in gloss and matte finishes
- Heavy liner helps material resist buckling to print consistently, even though the rigors of digital latex printing.
- Gray adhesive for excellent hiding power over colored substrates.
- Expected Performance Life of 12 months (unwarranted period for unprinted film with no graphic protection, applied to a flat, vertical, outdoor surface)
- Splice-free graphic film that increases productivity and efficiency while reducing waste

2. Recommended Types of Graphics and End Uses

For IJ16R-10, IJ16R-20 film:

- Short term, indoor and outdoor promotional graphics
- Signs, trade show and point-of-purchase displays

For IJ15-114 and IJ15-124 clear film:

- Translucent graphics and signs for exterior and interior windows
- Two-faced signs
- Internally lit exterior and interior signs, in vertical position
- As an overlaminate for IJ15 or IJ16 Series

A. Limitations of End Uses

The following uses and applications are specifically NOT warranted.

- Application to corrugated surfaces or surfaces with compound curves or stainless-steel surface
- Application to competitive flexible sign substrates

3. Characteristics

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

A. Physical Characteristics

Characteristic	Value
Material	Monomeric Calendered Vinyl
Film Thickness	Without adhesive: 3-4 mils (0.07-0.10 mm) With adhesive: 3.5-4.5 mils (0.09-0.11mm)
Film Finishing	IJ16R-10: White with Gloss finish IJ16R -20: White with Matte finish
Adhesive Color	IJ16R-10: Grey IJ16R-20: Grey
Adhesive type	Acrylic, pressure sensitive
Liner	Polycoated Kraft Paper 140±5 g/m ²

B. Application Characteristics

Characteristic	Value
Finished graphic application recommendations	Surface type: Smooth, flat and simple curved surfaces Substrate type: Metal, rigid plastic and painted surfaces Application temperature: 4° – 38°C (40° – 100°F) air and substrate
Application method	Dry
Finished graphic exposure temperature	5° to +38°C (40° to +100°F)
Graphic removal	Without heat / chemicals

4. Warranted Information

A. 3M Basic Product Warranty

The warranty coverage for each graphic is based on the user both reading and following all applicable and current 3M Product and Instruction Bulletins. The warranty period for eligible graphics is as stated in the 3M Graphics Warranties Matrices found at 3MGraphics.com/warranties, at the time that the film was purchased. The warranty period may be reduced and stipulations may apply for certain constructions and applications, as covered in the 3M Graphics Warranties Bulletin found at 3MGraphics.com/warranties.

The warranties set forth in the Warranty Bulletin are made in lieu of all other express or implied warranties, including any implied warranty of merchantability, fitness for a particular purpose, or arising out of a course of dealing, custom or usage of trade.

3M Graphics Products are warranted to be free of defects in materials and manufacture at the time of shipment and to meet the specifications stated in its applicable 3M Graphics Product Bulletin and as further set forth in the [3M Graphics Warranties Bulletin](http://3MGraphics.com/warranties).

5. Expected Performance Life

A. Expected Performance

1 year in a vertical exposure with typical usage

3M Product and Instruction Bulletins provide practical recommendations for using this product in a way that maximizes performance, but using other 3M products or procedures with this film does not change the terms of the warranty.

B. Warranty and Limited Remedy

The limited remedy applicable to each warranty is addressed in the 3M Graphics Warranties Bulletin found at 3MGraphics.com/warranties.

Except where prohibited by law, 3M SHALL NOT UNDER ANY CIRCUMSTANCES BE LIABLE TO PURCHASER OR USER FOR ANY DIRECT (EXCEPT FOR THE LIMITED REMEDY PROVIDED IN THE 3M GRAPHICS WARRANTIES BULLETIN), INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES (INCLUDING, BUT NOT LIMITED TO, LABOR, NON-3M MATERIAL CHARGES, LOSS OF PROFITS, REVENUE, BUSINESS, OPPORTUNITY, OR GOODWILL) RESULTING FROM OR IN ANY WAY RELATED TO 3M'S

See the 3M Graphics Warranties Bulletin at 3MGraphics.com/warranties, for terms, additional limitations of your warranty, if any, and limitations of liability.

C. Definition of Vertical Exposure



face of graphic

The face of the graphic is $\pm 10^\circ$ from vertical

6. Fabrication

Before using any equipment, always read the manufacturer's instructions for safe operation.

Inkjet Printing

Always read and follow the ink manufacturer's written instructions on usage.

- **Sheeted film:** When used on a flat-bed inkjet printer, sheeted film may produce printing defects.
- **Ink limiting:** The recommended maximum ink limit is 250%.
- **If sheeted or stacked graphics will be stored:** If you plan to store sheeted and stacked finished graphics for an extended period of times, leave an unprinted margin (about 1/4 inch) to allow for possible shrinkage before trimming the graphic.

Do not exceed the recommended total ink coverage for the ink series used on this film. Having too high a total physical ink amount on the film results in media characteristic changes, incomplete drying, overlamine lifting, and/or poor graphic performance.

Completely Dry Graphics

IMPORTANT NOTE

Incomplete drying can result in graphic failure including curling, increased shrinkage and adhesion failure, which are not covered under any 3M Graphic Warranty.

See the ink's 3M Product and Instruction Bulletin for more details.

Screen Printing

Formulations and processing conditions can affect ink durability. Refer to the Product and Instruction Bulletins for your ink for limitations and proper usage.

Cutting

See [3M Instruction Bulletin 4.1](#) for Sheeting, Scoring and Film Cutting details.

Graphic Protection

Graphic protection may improve the appearance, performance and durability of the graphic.

3M™ Scotchcal™ Gloss IJ15-114

3M™ Scotchcal™ Matte IJ15-124

7. Shelf Life, Storage and Shipping

Activity	Recommendations
Shelf life	The shelf life is never more than 1 year from the date of manufacture on the original box. If you process the film, the shelf life is changed to 6 months from the processing date.
Storage conditions	• 32 °C (90°F) maximum • 40-50% humidity • Out of sunlight • Clean, dry area • Original container • Bring the film to print room temperature before using
Shipping finished graphics	Flat: may be separated by paper Roll: printed side out on 13 cm (5 inch diameter or larger core

8. Health and Safety



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, 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.

9. 3M Related Literature

Before starting any job, be sure you have the most current Product and Instruction Bulletins.

The information in 3M Product and Instruction Bulletins is subject to change. Current Bulletins are available at 3Mgraphics.com/apac. The following applicable

Bulletins provide information and processes you need to properly make the graphics described in this Bulletin. Additional Bulletins may be needed as indicated in the 3M Related Literature section of other 3M components you use.

Subject	Type	Bulletin No.
Bulletin types: PB = Product Bulletin; IB = Instruction Bulletin		
3M Graphic Protection Products <i>overview of all graphic protection products and specific information on most overlaminates</i>	PB	GP-1
Hot and Cold Roll Lamination for 3M Overlaminates	IB	4.22
Select and Prepare Substrates for Graphic Application	IB	5.1
Lamination, Application & Maintenance of Floor Graphics. Complete the Surface Preparation procedure found in this Instruction Bulletin prior to applying a graphic to a surface.	IB	5.19
Application, general procedures for indoor and outdoor dry applications	IB	5.5
Storage, handling, maintenance, removal	IB	6.5

3M Commercial Graphics Warranty Brochure go to

www.3Mgraphics.com/apac

3M and Scotchcal are trademarks of 3M.

10. Bulletin Change Summary

For the most current 3M Technical Information available to successfully use this product, please view this Bulletin electronically and click on the blue underlined links to view the relevant documents. This Bulletin has been substantially changed to remove warranty information and replace it with references to the new Graphics Warranties Website. Please read the entire Bulletin thoroughly.

Australia
1 Rivett Rd
North Ryde
NSW 2113
Tel: (61) 2 9498 9700

China
38/F, Maxdo Center
8 Xing Yi Road
200336, Shanghai
Tel: (86) 21 62753555

Hong Kong
5/F, Victoria Centre
15 Watson Road
Tel: (852) 2806 6256

Indonesia
Perkantoran Hijau Arkadia, Tower
F, 8/F, Jl. TB. Simatupang Kav.
88, Jakarta Selatan 12520,
Indonesia
Tel: (62) 21 2997 4000

India
UB City, Concorde Block
24 Vittal Mallya Road Bangalore
560001
Tel: (91) 80 66595759

Japan
6-7-29, Kita-Shinagawa,
Shinagawa-ku,
Tokyo, Japan 141-8684
Tel: (81) 3 6409 3800

Korea
HanaDaetoo B/D, 11/F
27-3 Yoido-dong,
Yongdeungpo-gu,
150-705 Seoul
Tel: (82) 2 3771 4114

Malaysia
Level 9, Block F, Oasis Square
No 2 Jalan PJU 1A/7A
Ara Damasara
47301 Petaling Jaya, Selangor
Tel: (60) 3 7884 2888

New Zealand
94 Apollo Dr, Rosedale
North Shore City, 0632
Tel: (64) 9 477 6620

Philippines
9/F Three World Square Building,
22 Upper McKinley Road, McKinley
Hill, Fort Bonifacio, Taguig City
1634 Tel: (63) 2 588 9100

Singapore
10 Ang Mo Kio Street 65
Techpoint #01-01
Singapore 569059
Tel: (65) 64508777

Sri Lanka
65C, Dharmapala Mawatha,
Colombo 7
Tel: (94) 11 2326990

Taiwan
6F., No. 95, Sec. 2,
Dunhua S. Rd.,
Taipei 10682
Tel: (886) 2704 9011

Thailand
12/F, Serm-mitr Tower,
159 Asoke-Montri Rd,
Klongtoey Nua, Wattana Bangkok
10110
Thailand
Tel: (66) 2260 8577

Vietnam
6/F, Dai Minh Convention,
77 Hoang Van Thai,
Tan Phu Ward, Dist. 7
Ho Chi Minh City
Tel: (84) 8 54160429

© 3M 2015. All rights reserved.