



3M™ Scotchcal™ Fluorescent Film Series 3480

Product Description

Scotchcal Fluorescent Film Series 3480 are tough cadmium-free vinyl fluorescent films which are highly conspicuous under all daylight conditions and provide the high attention value desired under conditions of poor visibility, particularly at dawn or dusk. These films are intended for applications to flat surfaces without rivets. These films are not recommended for use in areas of petroleum spillage. They can however be used in non-spill areas (i.e. cab doors etc.). Unprinted film is removable from most surfaces throughout its specified life with little or no adhesive residue without the aid of accessories or chemical strippers.

The warranty for and durability of Series 3480 film for commercial vehicles contained herein does not extend to automotive or personal vehicle applications which have to conform to OEM automotive specifications.

Adhesive

- Removable Pressure Sensitive

Liner

- White Kraft Liner 130g/m²

Colours

Series 3480

Yellow Orange 3483

Red Orange 3484

Saturn Yellow 3485

Minimum Application Temperature

Minimum application temperature 4°C

Note: **For applications nearing the minimum temperature range, please contact your local technical service representative to confirm suitability of application*

Effective Performance Life

When printed and applied in accordance with 3M recommended procedures and exposed vertically, the following performance may be expected. Substrate selection and preparation, maintenance of the marking and exposure conditions will determine actual performance.

Warranted Durability

Unprinted films			
Colour	Zone 1	Zone 2	Zone 3
Yellow Orange 3483	3 years	2 years	2 years
Red Orange 3484	3 years	2 years	2 years
Saturn Yellow 3485	3 years	2 years	2 years
Printed with 3M™ Scotchcal™ Screen Printing Ink Series 1900			
	Zone 1	Zone 2	Zone 3
All films	3 years	2 years	2 years

Zone 1 = Northern & Central Europe

Zone 2 = Mediterranean Europe

Zone 3 = Middle East and Northern Africa

Exceptions to the above are:

The warranty applies to films that are exposed at a vertical angle (defined as 90°+/-10°). A significant decrease in durability may be experienced if films are exposed other than vertical. Such non-vertical applications must be on a test and approval basis to determine acceptability. 3M does not warrant non-vertical exposures.

Fabrication

Screenprinting

Screen Printing Inks: 3M™ Screen Printing Ink Series 1900

Overprint Clear

For stated durability, screen printing inks must be clear coated as follows:

3M™ Screen Print Gloss Clear 1920

Hot Stamping

Film may be hot stamped using material available from several suppliers. Assurance of performance must be obtained from the foil manufacturer.

Premasking / Prespacing

Conditions	3M Application Tapes
General Premasking	SCPM-19
General Prespacing	SCPS-100

Chemical and Physical Properties

Values given are typical and are not for use in specifications. If a custom specification is desired, a request should be submitted through your sales representative. The data given below is for unprinted film

Physical Properties

Property	Metric Units
Thickness (ISO 4593)	0.25mm max.
Tensile Strength (ISO 1184-1983)	45 N/25mm at 23°C
Elongation (ISO 1184-1983)	100% at 23°C
Dimensional Stability (FTM 14)	0.8mm
Temperature Range	-34°C to +93°C
Impact Resistance at 23°C	No cracking
at -30°C	Slight cracking

Adhesion (FTM1)

Substrate	Metric Units (N/25mm)
Etched Aluminium	11
Anodised Aluminium	11
Chrome	9
ABS	9
Fruehauf Prepainted Panels	9

Note: ISO refers to standards of the International Standards Organisation. FTM (Finat Test Methods) refers to test methods listed by Finat, the Association of European Tape Manufacturers.

Chemical Resistance

- Resists mild acids, alkalis, and salts
- Excellent water resistance

Shelf Life

The shelf life of the film is 2 years and should be applied within 2 years of the receipt of film if unprocessed. Processed film should be applied within 1 year of processing and within 2 years of receipt of the film.

Storage

Film sheeting and markings must be stored in a clean area, free from excessive moisture and direct sunlight, with ambient temperatures of 38°C or less.

Related 3M Literature

Listed below is related 3M Technical Literature which may be of interest:

Subject	Product Bulletin	Instruction Bulletin
Product Bulletin	3480	
Design of Markings		2.1
Screen printing with 3M™ Screen Printing Ink Series 1900		3.12
Scoring and Cutting		4.2
Premasking and Prespacing		4.3
Surface Preparation		5.1
Application		5.5
Storage, Maintenance and Removal		6.5
Warranty of Products		

Glossary of Terms

Matched Component System™ or MCS™

The system pursuant to which Finished Graphics are produced by a Graphic Manufacturer using only 3M Products and components and manufactured in accordance with 3M's Product or Instruction Bulletins, 3M Specification Document and using 3M Approved Technologies.

Removable Adhesive

Films with removable adhesive can be lifted easily from most suitable substrates and may require the application of heat to add the process.

Health & Safety

Refer to the package label and the Material Safety Data Sheet for health, safety, and handling information on the products referenced in this bulletin. For 3M products, if necessary, you may contact our Toxicology/Product Responsibility Department on 01344 858000.

Important Notice to Purchaser

The 3M products described in this publication are covered by a 3M warranty and limitation of liability.

3M's warranty provides that if 3M finds that goods are defective in material or workmanship they will be replaced or the price refunded at 3M's option but note that 3M does not accept liability for other direct losses (except for personal injury or death) or consequential losses relating to defective products or from information supplied by 3M.

Purchasers and users of 3M products, and not 3M supplying companies, are always solely responsible for deciding on the suitability of the 3M product for their required or intended use.

Technical Assistance

For help on specific questions relating to 3M Commercial Graphics Division Products, contact your local Technical Service Representative.

Commercial Graphics Department
3M United Kingdom PLC
3M Centre, Cain Road, Bracknell
Berkshire, RG12 8HT
Tel: 01344 857850
Fax: 01344 857939
e-mail: commgraphics.uk@mmm.com
www.3m.com/uk/graphicsolutions
www.scotchprint.com/uk

Sales Assistance

Commercial Graphics Group
3M United Kingdom PLC
3M House, 28 Great Jackson Street
Manchester, M15 4PA
Tel: (0161) 237 6394
Free Fax: (0800) 378127
e-mail: commgraphics.uk@mmm.com
www.3m.com/uk/graphicsolutions
www.scotchprint.com/uk