



# 3M™ Scotchcal™ Translucent Mirror Film 7755SE-520

## Product Description

3M™ Scotchcal™ Translucent Mirror Film 7755SE-520 translucent mirror film is durable, dimensionally stable, glossy half mirror fluorocarbon based with a paper liner. This film is designed for use on electronically controlled cutters with or without vacuum hold-down capabilities. It is also intended for production of screen printing with 1900 inks. It provides chrome effect by day and translucent effect when backlit (LT 18%) which withstand severe weather and handling conditions. Scotchcal Translucent Mirror Film 7755SE-520 is ideally suited for application on glass windows and other transparent substrates such as acrylic by presenting the same appearance from both sides. The typical application is for backlit sign display, showing chrome effect by day and white colour by night. This film is intended for use on flat surfaces and simple curved surfaces. Application to corrugated and compound surfaces are not recommended nor warranted. In addition, it is not recommended to apply this film to substrates that have a tendency for outgassing.

7755SE-520 film laminated on suitable plastic substrates is recommended for thermoforming process. It is not intended for use where markings may be subjected to spillage of petroleum products or solvents.

The warranty for and durability of film 7755SE-520 for commercial vehicles as stated herein does not extend to automotive or personal vehicle applications which must conform to OEM Automotive specifications.

### Colour

7755SE-520 Translucent mirror

### Adhesive

7750-520 Clear acrylic pressure Sensitive

## Minimum Application Temperature

Film and Substrate: 10°C

## Liner

White kraft paper

## Effective Performance Life

When fabricated and applied in accordance with 3M recommended procedures, the following performance typically may be expected. Performance statements are based upon representative experience obtained from testing throughout Europe. Actual performance will be determined by substrate selection and preparation, maintenance of the marking and exposure conditions.

### Vertical Exposure

	Unprinted	Series 1900
		1920 clear
Northern / Central Europe	6 years	6 years
Mediterranean Europe	5 years	5 years
Middle East / North Africa	4 years	4 years

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. Thus horizontal exposure is not recommended

This bulletin does not contain detailed processing or application procedures for the subject product. The appropriate Instruction Bulletins referenced may be obtained by contacting your sales representative or distributor.

## Application and Uses

3M™ Scotchcal™ Translucent Mirror Film 7755SE-520 is intended for use in creating durable, permanent backlit channel letter, signs and displays. Any other applications are NOT warranted by 3M or covered by the worldwide 3M™ MCS™ Warranty unless 3M gives its prior written approval for the application.

## Fabrication

### Screen-printing

3M™ Screen Printing Ink Series 1900

Thinning recommendations: Inks should be thinned down to print viscosity by using a mixture of CGS-30 and CGS-50 at a 1:1 ratio. The clear coat should be thinned with 30 per cent of the above mentioned CGS-30 and CGS-50 solvent mixture.

### Overprint Clear

For stated durability, screen printing inks must be clear coated.

3M™ Screen Print Gloss Clear 1920DR

### Minimum Cutting Heights

The minimum height recommended for text is 10 mm. This is based upon cutting and weeding evaluations using uppercase Helvetica Medium copy. Users are encouraged to do their own evaluation for specific heights and design detail required for a particular job. The variable characteristics of electronically controlled cutting equipment requires users to verify their specific requirements.

Factors which affect cutting quality and capability that the user needs to take into consideration are:

- a. Sharpness of knife blade (dull blades impart a serrated look to the edge of the cut film).
- b. Weight on knife blade.
  - a) Ideal weight will result in a slight scoring of the liner.
  - b) Too light a weight will cause incomplete cutting through film and adhesive.
  - c) Excessive weight results in cut liner, the blade dragging (which will accelerate wear) and cause a serrated edge on the film.

### Weeding

It is recommended that 7755SE-520 film has the excess film weeded (removed) as soon after cutting as practical. This is to minimise the effect of possible adhesive flow, 24 or more hours after cutting.

## Premasking / Prespacing

Conditions	3M Application Tapes
<b>Unprocessed</b>	
General Premasking	SCPM-19
General Prespacing	SCPS-100
<b>Series 1900 Inks</b>	
General Premasking	SCPM-19
General Prespacing	SCPS-100

## Application

For film 7755SE-520 the dry application method is recommended. Wet application is not recommended or warranted as the metallised layer is impermeable to moisture.

Use low friction sleeves to avoid scratching of the film surface. 3M recommends to overlap 3 – 4 mm for multi colour backlit application.

## 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 or film which has been printed and clear coated.

### Physical Properties

Property	Metric Units
Thickness (DIN 53104)	0.08 mm - 0.09 mm
Tensile Strength (DIN EN ISO 527)	45 N/25 mm min at 23°C
Elongation* (DIN EN ISO 527)	50% at 23°C
Dimensional Stability (FTM 14)	< 0.4 mm
Temperature Range	-35°C to +95°C

### Adhesion (FTM1)

7755SE-520	
Substrate	Metric Units (N/25mm)
Acrylic	15 N/25 mm

**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

Chemical Agent	Exposure Time	Results
Reference Fuel (85% Mineral Spirits / 15% Xylol)	1 hour	Severe edge softening
#1 Diesel Fuel	1 hour	Severe edge softening
10% Hydrochloric Acid	10 mins	No effect
10% Ammonium Hydroxide	10 mins	No effect

## Thermoforming

3M™ Scotchcal™ Translucent Mirror Film 7755SE-520 is suitable for thermoforming. Note that the temperature of the film must not exceed +125°C. Hence, we recommend using PETg substrates due to their lower forming temperatures compared to other substrates.

## Storage and Shelf Life

Unprinted film may be stored up to two years after receipt from 3M under the following conditions:

Dry, clean area without direct sunlight, maximum temperature +35°C, preferable in the original container.

## Related 3M Literature

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

Subject	Bulletin No.
<b>Instruction Bulletins</b>	
Design of Markings	2.1
Scoring and Cutting	4.1
Premasking and Prespacing	4.3
Surface Preparation	5.1
Application	5.7
Thermoforming	5.16
Storage, Maintenance	6.5
3M™ MCS™ Warranty System	

## Technical Assistance

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

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## Sales Assistance

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