

# 3M Scotchcal™ Graphic Film IJ1220

**For Solvent-Based Piezo Ink Jet Printing Only**

## Product Description

Scotchcal film series IJ1220 is available in semi-permanent version. They are designed for the promotional film market where a good quality film is needed for short-term, promotional-type graphics. Clear film IJ1220-114 may be used for printing and/or graphic protection of IJ1220-10.

## Product Line

IJ 1220-10G	White gloss, CLEAR semi-permanent adhesive
IJ 1220-10M	White matte, CLEAR Semi-permanent adhesive
IJ 1220G-10G	White gloss, GREY semi-permanent adhesive
IJ1220G-10M	White matte, GREY semi-permanent adhesive
IJ 1220-114	Transparent gloss, Permanent adhesive

## Characteristics

### Physical Properties

Characteristic	Property
Film	Vinyl
Color	White/Transparent
Surface	Glossy or Matte
Thickness	125µm
Without adhesive	100µm
Adhesive type and color	Acrylic Solvent-based, Clear or Grey
Liner	Polyethylene-coated paper
Roll sizes	42 inch (1.07m) x 50 m 42 inch (1.07m) x 100m

48 inch (1.22m) x 50 m
48 inch (1.22m) x 100m
50 inch (1.27m) x 50m
50 inch (1.27m) x 100m
54 inch (1.37m) x 50 m
54 inch (1.37m) x 100m

## Application Properties

Characteristic	Property
Graphic application recommendations	<b>Surface type:</b> flat, simple curves <b>Substrate type:</b> metal, paint, rigid PVC <b>Application temperature:</b> 7° - 100°F (10° - 38°C) <i>air and substrate</i>
Application method	Dry
Installed graphic exposure temperature	-59° - +192°F (-50° - +90°C)
Shrinkage of applied graphic (unprinted)	<b>Alodine:</b> 7.87mil / 0.20mm <b>Fruehauf:</b> 8.86mil / 0.23mm <b>Polycarbonate:</b> 9.35mil / 0.24mm Good (< 50mil / 1.72mm)
Tensile strength @ room temp.	<b>Load at Break:</b> 16.1 lbf <b>Percentage Strain:</b> 241.6% <b>Young's Modulus:</b> 185981 psi
Initial Adhesion <i>24 hours after application</i>	<b>Alodine:</b> 6.05 lbf <b>Fruehauf:</b> 4.46 lbf
Removability (Apply on Alodine)	<b>Pull at 90°:</b> 30% Adhesive Residue



and heat age for 5 days at 66°C)	<b>Pull at 135°:</b> 0% Adhesive Residue
	<b>Pull at 180°:</b> 40% Adhesive Residue

## Effective Performance Life

When manufactured, applied and maintained in accordance with 3M recommended procedures, graphics produced on 3M™ Scotchcal™ Graphic Film IJ1220 and protected with selected 3M™ Scotchcal™ Overlaminates a warranty founded on 3M™ MCST™ will be given by 3M. Performance statements are based upon representative experience obtained from testing throughout Asia Pacific. Actual performance will be determined by substrate selection and preparation, maintenance of the marking and exposure conditions.

### When to Use an Overprint Clear or Overlamine

An overprint clear or overlamine provides protection to a graphic as well as changing gloss. Typically, only graphics that are subjected to harsh conditions require this protection in order to be warranted. They include:

- Vehicle and fleet graphics; such graphics are subjected to abrasion such as road debris and automatic/power washing.
- Any graphic exposed to abrasive washing conditions, including automatic/power washing, harsh cleaners or chemicals.

### Warranted Durability

The 3M MCS™ Warranty statement for Scotchcal™ Graphics Film IJ1220 is based on chosen media construction.

### Limitations of End Uses

Specifically, we do not warrant this film for the following:

- Graphics applied to:
  - Corrugated or highly irregular surfaces or sharply raised areas such as huck bolts.
  - Substrates that do not have a clean, smooth surface or have poor paint-to-substrate adhesion.
  - Stainless steel.
  - Flexible substrates.
  - Compound contours.
  - Exterior horizontal applications.
- Graphic removal from:
  - Existing graphics that must remain intact.
- Graphics subjected to gasoline vapours or spills.

## Application Tapes

Overlamine or Overprint Clear	Prespace Tape	Premask Tape
Printed, uncleaned	SCPS-100	SCPM-19
1920DR IJ 20-114 8530	SCPS-100	SCPM-19

See Instruction Bulletin 4.3 for details.

## Removal

Graphics Film IJ1220 can be removed within the warranted period.

## Printer Support Information

### Ink

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

### Total Ink Coverage

Do not exceed the recommended total ink coverage for this film. Too high a total physical ink amount on the film results in media characteristic changes, inadequate drying, overlamine lifting, and/or poor graphic performance. Refer to the Instruction Bulletin for the ink system being used for the recommended total ink coverages.

### Drying

#### Caution

Always build enough time into your process to ensure adequate drying of the graphic. Poorly dried film may become soft and stretchy, and the adhesive may become too aggressive. This can cause difficulty when applying an overlamine, rolling the graphic, and applying the film. See the ink's Instruction Bulletin for more details.



## Shelf Life, Storage and Shipping

Characteristic	Property
Shelf life	Apply within 1 month of processing, not to exceed 3 months total shelf life processed and unprocessed. <i>Products with single-sided PE coated liner may curl at the edge if store under high temperature and high humidity within 1 week.</i>
Storage conditions	Out of sunlight; clean dry area; original container
Maximum storage temperature	90°F (32°C)
Shipping finished graphics	<b>Flat:</b> may separate by paper <b>Roll:</b> printed side out on 5 inch (13 cm) or larger core

## For Further Assistance

For help on specific questions relating to 3M Commercial Graphics products, please contact your local 3M Technical Service person or contact:

The use of trademark signs and brand names in this bulletin is based upon US standards. These standards may vary from country to country outside the USA.

## Important Notice

This bulletin provides technical information only.

All questions of warranty and liability relating to this product are governed by the terms and conditions of the sale, subject, where applicable, to the prevailing law.

Before using, the user must determine the suitability of the product for its required or intended use, and the user assumes all risk and liability whatsoever in connection therewith.

## 3M Related Literature

3M offers for all products detailed technical literature. Additionally, comprehensive instruction bulletins are available describing in detail the best usage of our products.

Ask your local 3M contacts or refer to local Commercial Graphics internet pages to get the most current product and/or instruction bulletins.



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