



# Removable Vinyl Durable Film Product

## FV1405W

Technical Data

August, 2008

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### Product Description

3M™ Removable Vinyl Durable Film Product FV1405W is a flexible, conformable clear vinyl that offers durability and moisture resistance. This vinyl film utilizes 3M™ Adhesive R3500, which is designed for use on smooth surfaces such as glass, metal, and plastic (including polystyrene) and offers excellent UV resistance, good initial tack, and long term adhesion with clean removability and is an excellent alternative to static cling.

**Note:** As a removable adhesive, performance may vary depending upon the substrate to which it is applied. Therefore, extensive testing should be conducted prior to use and textured surfaces should be avoided. Not appropriate for children's toy or sticker applications.

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### Construction

Facestock	Adhesive	Liner
.004 in. Soft Clear Vinyl NTC	R3500 Rem. 16	90# Polycyd. 7.0 mil bleached kraft sheet polyethylene coated on two sides

(Calipers are nominal values)

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### Features

- The polymerically plasticized nature of this soft, flexible vinyl imparts long term dimensional stability for demanding applications.
- Static cling alternative.
- Good initial tack.
- Long term adhesion with clean removability (no residue).
- Liner is designed for the ultimate in layflat. The backside of this liner is not printable.

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### Application Ideas

- Window decals, removable graphics, POP promotional graphics.

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## Typical Physical Properties

**Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes.**

Adhesion properties determined per TLMI Method using 1.0 mil polyester with 1.0 mil of adhesive on a polished stainless steel panel.

<b>Peel Adhesion</b>	Approx.	0.3 lbs./in. (53 N/m)	TLMI Method, 180° Peel, 12"/min., 1" wide sample
<b>Loop Tack</b>	Approx.	0.5 lbs./in. (88 N/m)	TLMI Method, 12"/min., 1" wide sample
<b>Shear</b>		N/A	TLMI Method, 0.25 in <sup>2</sup> x 500g
<b>Adhesive Coat Weight</b>		1.67 to 1.89 g/100 in <sup>2</sup>	TM-2279
<b>Release Range</b>		15 to 200 g/2 in.	TLMI Method, 180° removal, 300 in./min.
<b>Service Temperature</b>		-20°F to 140°F (-29°C to 60°C)	
<b>Application Temperature</b>		40°F to 120°F (5°C to 49°C)	

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## Application Techniques

For maximum bond strength, surface should be clean and dry. A typical cleaning solvent is heptane or isopropyl alcohol. **Note:** Consult the manufacturer's MSDS for proper handling and storage of solvents. For best conditions, application surface should be at room temperature or higher. Low temperature surfaces (below 40°F [5°C]) can cause the adhesive to become so firm that it will not develop maximum contact with the substrate. Higher initial bonds are achieved through increased rub down pressure.

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## Printing

- A non-topcoated print surface designed for use with solvent screen ink systems.

### **Solvent Screen Inks:**

3M™ Screen Printing UV Ink Series 9800

Nazdar's 7700 and System 2

Sericol's Polyplast PY, GVYL, VYL, TMI and Techmark

Please be aware that our current production specifications for these materials are primarily qualified for printers who use flexographic, screen printing, and thermal transfer printing processes. 3M has neither done profile work with these products for printing by digital inkjet processes, nor engaged in any lot variation studies, nor taken any special measures in manufacturing or handling of these products with the intent of recommending these products for printing by digital inkjet methods.

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## Die Cutting / Converting

Die cut with steel rule or flatbed dies. The 90# liner also allows kiss cutting and back splitting. The converter can cut through the polyester facestock without cutting through the liner. Sheet label materials are not recommended for rotary die cutting and stripping operations.

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## Packaging

Finished labels should be stored in plastic bags.

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<b>Storage</b>	Store at room temperature conditions of 72°F (22°C) and 50% relative humidity.
<b>Shelf Life</b>	If stored under proper conditions, product retains its performance and properties for two years from date of manufacture.
<b>Product Use</b>	All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.
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**ISO 9001:2000**

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2000 standards.



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