

September, 2008

## 3M™ Extended Liner Tape 450EK

### Product Description

3M™ Extended Liner Tapes have a liner that extends beyond the width of the adhesive to provide easy liner starting and removal. The liners (with the exception of 3M™ Extended Liner Tapes 450EK and 9934XL) are printed with the message, "Remove to Expose Adhesive".

### Product Features

- The extended liner provides a dry edge on each side of the tape for easy liner removal. Stated product widths include the dry edge of the liner.
- 3M™ Extended Liner Tape 450EK is ideal for pharmaceutical outsert attachment. 3M tape 450EK has the most tear resistant liner of these products. This release liner has stretch built into the paper making it tough and tear resistant.



### Technical Information Note

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

### Typical Physical Properties

Property	Values	
Color	Clear	
Total Tape Thickness without liner	0.025 mm	1 mil
Adhesive	400 Acrylic	
Liner	70# White Extensible Kraft	
Liner Thickness	0.146 mm	5.6 mil
*Note	3M™ Adhesive 400 is a medium-firm acrylic pressure-sensitive adhesive system. It features high initial adhesion to a wide variety of materials and good shear holding power.	

### Typical Performance Characteristics

Property	Values		Method	Substrate
Peel Adhesion	2.2 N/cm	20 oz/in	ASTM D3330	Stainless Steel
Solvent Resistance	Medium/High			
UV Resistance	Excellent			

Relative High Temperature Operating Ranges		Test Condition
121 °C	250 °F	Short Term (minutes, hours)
82 °C	180 °F	Long Term (days, weeks)

Property: Relative High Temperature Operating Ranges

### Available Sizes

Property	Values	
Note	Subject to Minimum Order Requirements	
Maximum Length	548 m	600 yd
Available Width	25.4 mm	1 in

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**Available Sizes (continued)**

Property	Values	
Normal Slitting Tolerance	± 0.8 mm	± 1/32 in
Liner Extension Width (each side)	2.4 mm	3/32 in
Core Size (ID)	76.2 mm	3.0 in

**Handling/Application Information**

**Application Techniques**

- Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure helps develop better adhesive contact and improve bond strength.
  - To obtain optimum adhesion, the bonding surfaces must be clean, dry, and well unified. Some typical surface cleaning solvents are isopropyl alcohol and heptane.\*
  - Ideal tape application temperature range is 70°F to 100°F (21°C to 38°C). Initial tape application to surfaces at temperatures below 50°F (10°C) is not recommended because the adhesive becomes too firm to adhere readily. However, once properly applied, low temperature holding is generally satisfactory.
- \*Note: When using solvents, extinguish all ignition sources, including pilot lights, and follow the manufacturer’s precautions and directions for use.

**Storage and Shelf Life**

24 months from date of manufacture when stored in original cartons at 70°F (21°C) and 50% relative humidity.

**Trademarks**

3M is a trademark of 3M Company.

**References**

**Safety Data Sheet (SDS)**

[https://www.3m.com/3M/en\\_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en\\_US&co=ptn&q=450EK](https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=450EK)

**Family Group**

	450EK	450XL	465XL	466XL	476XL	920XL	9925XL	9926XL	9934XL
Relative High Temperature Operating Ranges (°C) Test Condition: Short Term (minutes, hours)	121	121	121	121	65	121	65		66
Relative High Temperature Operating Ranges (°C) Test Condition: Long Term (days, weeks)	82	82	82	82	50	82	41		49
Color	Clear	Clear	Clear	Clear	Clear	Clear	Off-White Translucent	Clear	Clear - slight amber hue
Total Tape Thickness without liner (mm)	0.025	0.025	0.05	0.05	0.16	0.025	0.065	0.025	0.1

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**Family Group (continued)**

	450EK	450XL	465XL	466XL	476XL	920XL	9925XL	9926XL	9934XL
Adhesive	400 Acrylic	400 Acrylic	400 Acrylic	340 Acrylic	760 Rubber	400 Acrylic	770 Rubber	*400 Acrylic	*600
Liner	70# White Extensible Kraft	60# Kraft Glassine, Tan Green Printing	60# Densified Kraft Tan Paper Green Printing	62# Densified Kraft Off-White Paper Black Printing	43# Densified Kraft White Paper Red Printing	43# Densified Kraft White Paper Red Printing	43# Densified Kraft White Paper Black Printing	43# Densified Kraft White Paper Red Printing	60# Semi-bleached Kraft
Liner Thickness (mm)	0.146	0.09	0.09	0.11	0.08	0.065	0.05	0.065	0.09

**ISO Statement**

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

**Product Selection and Use**

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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