



Extended Liner Tapes

450EK • 450XL • 465XL • 466XL

476XL • 920XL • 9925XL

Technical Data

September, 2008

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 Tape 450EK is printed with the message, “Remove to Expose Adhesive”

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 Tapes 465XL, 920XL and 9925XL are ideal for adhesion to paper materials but also work well on many other surfaces. Some application ideas are:
 - Pressure-sensitive edges for posters and point of purchase sales advertising.
 - Permanent mounting of novelty items, note pads, literature, posters and labels.
 - Pressure-sensitive edging on business forms.
- 3M™ Extended Liner Tapes 450EK, 450XL, 465XL and 920XL are ideal for pharmaceutical outsert attachment. 3M tape 450XL has a heavier liner than 3M tape 920XL to help reduce liner breakage during application. 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. 3M tape 465XL is .002 in. thick for surface which requires more adhesive mass.
- 3M™ Extended Liner Tape 466XL is well suited to many coated, uncoated and synthetic paper applications as well as for high and low surface energy plastic film applications.
- 3M™ Extended Liner Tape 476XL is a double coated tape with a film carrier and has excellent quick stick for sealing many boxes and tubes used for various types of shipments.
- 3M™ Extended Liner Tape 9925XL is a double coated tape with a thin tissue carrier for permanent paper to paper bonding.

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| Construction | | 3M™ Extended Liner Tape 450EK | 3M™ Extended Liner Tape 450XL | 3M™ Extended Liner Tape 465XL | 3M™ Extended Liner Tape 466XL | 3M™ Extended Liner Tape 476XL | 3M™ Extended Liner Tape 920XL | 3M™ Extended Liner Tape 9925XL |
|---|--|---|---|--|--|---|---|--|
| Adhesive Type:* | | 400 Acrylic | 400 Acrylic | 400 Acrylic | 340 Acrylic | 760 Rubber | 400 Acrylic | 770 Rubber |
| Adhesive Carrier: | | None | None | None | None | Polypropylene film | None | Tissue |
| Release 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 |
| Approximate Thickness: Release Liner | | 0.0056 in. (0.146 mm) | 0.0035 in. (0.09 mm) | 0.0035 in. (0.09 mm) | 0.004 in. (0.11 mm) | 0.003 in. (0.08 mm) | 0.0025 in. (0.065 mm) | 0.002 in. (0.05 mm) |
| Tape Only | | 0.001 in. (0.025 mm) Adhesive Transfer Tape | 0.001 in. (0.025 mm) Adhesive Transfer Tape | 0.002 in. (0.05 mm) Adhesive Transfer Tape | 0.002 in. (0.05 mm) Adhesive Transfer Tape | 0.006 in. (0.16 mm) Double Coated Film Tape | 0.001 in. (0.025 mm) Adhesive Transfer Tape | 0.0025 in. (0.065 mm) Tissue Reinforced Double Coated Tape |
| Tape Color: | | Clear | Clear | Clear | Clear | Clear | Clear | Off-White Translucent |

* 3M™ Adhesive 340 is a medium firm acrylic pressure-sensitive adhesive system. It features very high tack to a variety of surfaces.
 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.
 3M™ Adhesive 760 is a high tack synthetic rubber adhesive. It provides excellent quick stick or initial adhesion.
 3M™ Adhesive 770 is a soft rubber-resin pressure sensitive adhesive system. It features high initial adhesion to a wide variety of materials.

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

| Products | 3M™ Extended Liner Tape 450EK | 3M™ Extended Liner Tape 450XL | 3M™ Extended Liner Tape 465XL | 3M™ Extended Liner Tape 466XL | 3M™ Extended Liner Tape 476XL | 3M™ Extended Liner Tape 920XL | 3M™ Extended Liner Tape 9925XL |
|---|-------------------------------|-------------------------------|--|--|---|--|---|
| Adhesion to Steel: (ASTM D3330) | 20 oz./in. (22 N/100 mm) | 20 oz./in. (22 N/100 mm) | 25 oz./in. (27 N/100 mm) | 44 oz./in. (48 N/100 mm) | 130 oz./in. (141 N/100 mm) | 20 oz./in. (22 N/100 mm) | 60 oz./in. (66 N/100 mm) |
| Relative High Temperature Operating Ranges: Long Term (days, weeks) | 180°F (82°C) | 180°F (82°C) | 180°F (82°C) | 180°F (82°C) | 120°F (50°C) | 180°F (82°C) | 100°F (41°C) |
| Short Term (minutes, hours) | 250°F (121°C) | 250°F (121°C) | 250°F (121°C) | 250°F (121°C) | 150°F (65°C) | 250°F (121°C) | 150°F (65°C) |
| Relative Solvent Resistance: | Medium/High | Medium/High | Medium/High | Medium | Medium/Low | Medium/High | Low |
| U.V. Resistance: | Excellent | Excellent | Excellent | Fair | Not recommended for direct exposure to sunlight or other sources of ultra violet light. | Excellent | Not recommended for direct exposure to sunlight or other sources of ultra violet light. |
| Shelf Life of Tape in Roll Form: | 24 months | 24 months | 24 months | 24 months | 18 months | 24 months | 18 months |
| months from date of manufacture when stored in original cartons at 70°F (21°C) and 50% relative humidity. | | | | | | | |
| Available Sizes | | | | | | | |
| Available Lengths (Subject to Minimum Order Requirements): Minimum | — | — | 60 yds. (55 m) | 500 yds. (457 m) | 60 yds. (55 m) | 1000 yds. (914 m) | 750 yds. (685 m) |
| Maximum | 600 yds. (548 m) | 750 yds. (685 m) | 600 yds. (548 m) | 1000 yds. (914 m) | 540 yds. (494 m) | 1000 yds. (914 m) | 750 yds. (685 m) |
| Available Widths (Subject to Minimum Order Requirements): NOTE: Liner Widths Shown | 1 in. (25.4 mm) only | 1 in. (25.4 mm) only | 1/2 in. (12.7 mm), 3/4 in. (19.1 mm), 1 in. (25.4 mm) only | 1/2 in. (12.7 mm), 3/4 in. (19.1 mm), 1 in. (25.4 mm) only | 1/2 in. (12.7 mm), 3/4 in. (19.1 mm), 1 in. (25.4 mm), 1.5 in. (38 mm), 1.8 in. (47 mm) | 1/2 in. (12.7 mm), 3/4 in. (19.1 mm), 1 in. (25.4 mm) only | 1/2 in. (12.7 mm), 3/4 in. (19.1 mm), 1 in. (25.4 mm) only |
| Liner Extension Width: (each side) | 3/32 in. (2.4 mm) | 3/32 in. (2.4 mm) | 3/32 in. (2.4 mm) | 1/16 in. (1.6 mm) | 1/8 in. (3.2 mm) | 3/32 in. (2.4 mm) | 1/16 in. (1.6 mm) |
| Normal Slitting Tolerance: | ± 1/32 in. (0.8 mm) | ± 1/32 in. (0.8 mm) | ± 1/32 in. (0.8 mm) | ± 1/32 in. (0.8 mm) | ± 1/32 in. (0.8 mm) | ± 1/32 in. (0.8 mm) | ± 1/32 in. (0.8 mm) |
| Core Size (ID): | 3.0 in. (76.2 mm) | 3.0 in. (76.2 mm) | 3.0 in. (76.2 mm) | 3.0 in. (76.2 mm) | 3.0 in. (76.2 mm) | 3.0 in. (76.2 mm) | 3.0 in. (76.2 mm) |

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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.

Product 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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ISO 9001:2000

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



Industrial Adhesives and Tapes Division Converter Markets

3M Center, Building 21-1W-10, 900 Bush Avenue
St. Paul, MN 55144-1000
800-223-7427 • 651-778-4244 (fax)
www.3M.com/converter



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