



Extended Liner Tapes

464XL • 465XL • 920XL • 921XL • 922XL

Technical Data

August, 1994

Product Description

464XL 0.003 in. (0.08 mm) thick Tissue Reinforced Double Coated Tape

465XL 0.002 in. (0.05 mm) thick Adhesive Transfer Tape

920XL 0.001 in. (0.025 mm) thick Adhesive Transfer Tape

921XL 0.001 in. (0.025 mm) thick Adhesive Transfer Tape

922XL 0.002 in. (0.05 mm) thick Adhesive Transfer Tape with a liner extension

These tapes have an extended liner (XL), that is, the liner extends beyond the width of the adhesive to provide easy liner starting and removal. The liners, with the exception of 922XL tapes, are printed with the message, "Remove to Expose Adhesive".

Construction

Products	464XL Tape	465XL Tape	920XL Tape	921XL Tape	922XL Tape
Adhesive Type:*	R-70	A-50	A-50	A-70	A-25
Adhesive Carrier:	Thin paper tissue	None	None	None	None
Release Liner:	Off-White Paper Black Printing	Tan Paper Green Printing	White Paper Red Printing	White Paper Blue Printing	Tan Paper
Approximate Thickness: Release Liner	0.0025 in. (0.065 mm)	0.0035 in. (0.09 mm)	0.0025 in. (0.065 mm)	0.0025 in. (0.065 mm)	0.004 in. (0.11 mm)
Tape Only	0.003 in. (0.076 mm)	0.002 in. (0.05 mm)	0.001 in. (0.025 mm)	0.001 in. (0.025 mm)	0.002 in. (0.05 mm)
Tape Color:	Off-White	Clear	Clear	Clear	Clear

*A-25 is a firm acrylic pressure-sensitive adhesive system. It features very high adhesion to a variety of surfaces, excellent shear holding power, high temperature resistance and excellent UV resistance.

A-50 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.

A-70 is a soft pressure-sensitive adhesive system. It features low initial adhesion to paper and many other materials with minimal bond build-up.

R-70 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	464XL Tape	465XL Tape	920XL Tape	921XL Tape	922XL Tape
	Adhesion to Steel: (ASTM D3330)	60 oz./in. (66 N/100 mm)	25 oz./in. (27 N/100 mm)	20 oz./in. (22 N/100 mm)	20 oz./in. (11 N/100 mm)	70 oz./in. (76 N/100 mm)
	Relative High Temperature Operating Ranges:					
	Long Term (days, weeks)	150°F (65°C)	180°F (82°C)	180°F (82°C)	150°F (65°C)	300°F (149°C)
	Short Term (minutes, hours)	200°F (93°C)	250°F (121°C)	250°F (121°C)	200°F (93°C)	450°F (232°C)
	Relative Solvent Resistance:	Medium/Low	Medium/High	Medium/High	Low	Very High
	U.V. Resistance:	Not recommended for direct exposure to sunlight or other sources of ultra violet light.	Excellent	Excellent	Excellent	Not recommended for direct exposure to sunlight or other sources of ultra violet light.
	Shelf Life of Tape in Roll Form:	18 months from date of manufacture when stored in original cartons at 70°F (21°C) and 50% relative humidity.	24	24	18	24
Available Sizes						
Available Lengths (Subject to Minimum Order Requirements):						
Standard	60 yds. (55 m)	60 yds. (55 m)	1000 yds. (914 m)	1000 yds. (914 m)	60 yds. (55 m)	
Maximum	600 yds. (548 m)	600 yds. (548 m)	1000 yds. (914 m)	1000 yds. (914 m)	600 yds. (548 m)	
Available Widths (Subject to Minimum Order Requirements):						
NOTE: Liner Widths Shown	1/2 in. (12.7 mm) to 22-3/4 in. (578 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	1/2 in. (12.7 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)	1/8 in. (3.2 m)	1/16 in. (1.6 m)	1/16 in. (1.6 m)	1/16 in. (1.6 m)	1/16 in. (1.6 m)	
Normal Slitting Tolerance:			± 1/32 in. (0.8 mm)			
Core Size (ID):			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.
Note: Be sure to follow manufacturer's safety precautions and directions for use when using solvents.
- 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.

General Information

- The extended liner provides a dry edge on each side of the tape for easy removal. Liner extension is 1/16 in. (1.6 mm) on each side on all tapes except 464XL tape. This decreases the adhesive coating 1/8 in. (3.2 mm) overall. For 464XL tape, the extension is 1/8 in. (3.2 mm) on each side, which decreases the adhesive coating 1/4 in. (6.4 mm) overall.
- The thin tissue reinforces the adhesive in 464 tape allowing its use in many 3M double coated tape dispensers.
- Due to its high adhesion, 464 tape will normally transfer adhesive or delaminate when removed from most surfaces.
- 464 tape meets the requirements of U.S. Government Specification UU-T-91-E.

Application Ideas

464XL tape is ideal for applications where an aggressive rubber-resin adhesive with high initial adhesion is required. Some application ideas are:

- Quick and easy tacking of carpet edges.
- General industrial mounting, joining, and splicing.
- Mounting novelties and promotional uses.

465XL and 920XL tapes 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.
- Mounting of novelty items, photographs, note pad.
- Pressure-sensitive edging on business forms.

921XL tape is ideal for mounting and joining materials where repositionability may be desired.

922XL tape is ideal for joining a wide variety of similar and dissimilar materials where high shear strength and high temperature performance are required.

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For Additional Information

To request additional product information or to arrange for sales assistance, call toll free 1-800-227-5085. Address correspondence to: 3M Industrial Tape and Specialties Division, 3M Center, Building 220-8E-04, St. Paul, MN 55144-1000. Our fax number is 612-733-9175. In Canada, phone: 1-519-451-2500. In Puerto Rico, phone: 1-809-750-3000. In Mexico, phone: 5-728-0400.

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ISO 9002

This Industrial Tape and Specialties Division product was manufactured under a 3M quality system registered to ISO 9002 standards.



Joining Systems
Industrial Tape and Specialties Division
3M Center, Building 220-7E-01
St. Paul, MN 55144-1000



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