

3M™ Cushion-Mount™
Plus Tape



Maximising
Print
Quality

3M™ Cushion-Mount™ Plus Tapes

Mounting tape selection

10% HIGHLIGHT	40% MIDTONE	SOLID	POSITIVE		TAPE COLOUR
				11 Series Low Density Foam	Sharpest Process Image Finest Dots Controlled Ink Transfer
				19 Series Medium / Low Density Foam	Fine Process Image combined with Fine lines Small Solid Areas
				13 Series Medium / Soft Density Foam	Excellent combination printing at high speed Clean fine-print reverses Rich Half Tones Runs at higher press speeds with an expanded colour gamut.
				10 Series Medium Density Foam	Excellent Combination Printing Good Lines Good Solids Good Half-Tones
				15 Series Medium / High Density Foam	High Speed Printing with fine type Reverses and expanded Colour Gamut Bounce less on faster Press
				17 Series Medium / High Density Foam	Superior Solids and Opaque Backgrounds Outstanding Lines Rich Half-Tones
				18 Series High Density Foam	Superb Solids and Opaque Background Colour Exceptional Lines High Ink Transfer with almost no Pinholing

- Quick and easy application and repositioning
- Grips well and cushions even during the longest runs
- Enables high running speeds

- Helps reduce bounce
- Quick, easy and clean removal from plate and cylinder after use

E-LINER PRODUCTS REDUCE AIR ENTRAPMENT FOR EVEN EASIER USE AND HIGHER QUALITY IMAGES

NOTE: Printed samples above show the typical impact of mounting tapes on print quality. Firmer tapes generally give better solid ink coverage while softer tapes provide better dot and edge reproduction.

Printed using : • CI press • 300m/min • Anilox 800 lpi (2.4 bcm) • 0.50mm/.020" tape • 1.70mm/.067" photopolymer plates

Samples magnified : • Lines: 50x • Solids: 8x • Dots (10 %): 50x

3M Flexographic Mounting Tape Selection guide

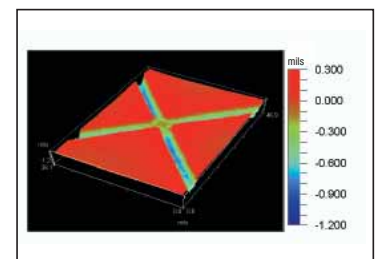
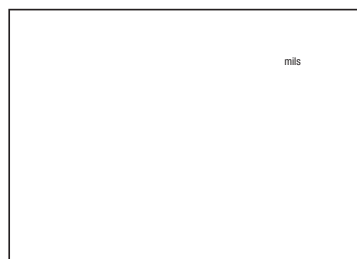
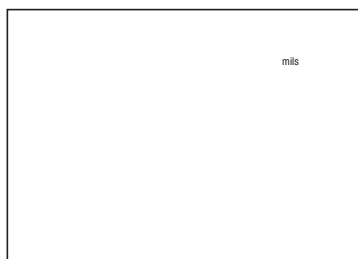
Product Choice	3M™ Process Printing Tapes	3M™ Combination Printing Tapes						3M™ Tapes for Solids, Lines and Text	Thickness
	11 Series	19 Series	13 Series	10 Series	15 Series	17 Series	18 Series		
Hardness	soft							firm	
QUALIFIED FOR:	Process Process >95 Solids <5	Combination Process >80 Solids <20	Combination Process ~80 Solids ~20 Press Speed >300m/min	Combination Process ~50 Solids ~50	Combination Process ~40 Solids ~60 Press Speed >300m/min	Combination Process <20 Solids >80 Press Speed >300m/min	Combination Process <5 Solids >95		
Ratio Process printing vs Solid/Line printing									
MEDIUM ADHESION TO PRINTING PLATE • Easier plate removal • Use with larger diameter print cylinder • Use with thinner plates	E1120	E1920	E1320	E1020	E1520	E1720	E1820	0.50mm	
	E1115	E1915	E1315	E1015	E1515	E1715	E1815	0.38mm	
				E1040				1.00mm	
				E1060				1.50mm	
HIGH ADHESION TO PRINTING PLATE • Higher plate side adhesion • Use with smaller diameter print cylinder • Better results with thicker plates	E1120H	E1920H	E1320H	E1020H	E1520H	E1720H	E1820H	0.50mm	
	E1115H	E1915H	E1315H	E1015H	E1515H	E1715H	E1815H	0.38mm	
	High quality process and screen work	Process and halftones predominate	Solids and halftones are equally important. Faster press speeds.	Solids and halftones are equally important	Solids in combination with halftones / fine reverses at higher press speeds	Slightly more solids in combination of solid and halftones	Mostly solids, lines or text		

The above is intended as a guideline only. Users should carefully evaluate products for their application. The above refers to only part of the 3M range.

E Series - Exclusive liner prevents air entrapment by forming microchannels in the adhesive

- Proprietary 3M technology
- Crosshatched pattern creates a continuous network of microchannels in the adhesive, allowing air to flow on both sides of tape
- Advantages and benefits
 - Allows air to escape from between tape and sleeve/cylinder and tape and plate for easier mounting
- Improves consistency of print quality due to reduction of air bubbles that can cause “blemishes” in screen and process jobs
- Increases productivity with less time spent on plate mounting

Microscopic View of Adhesive Surface



Enlarged View Under Plate Floor



Pebbled

Flat

Microchannel

Cleaning, Mounting, Removal and Storage Techniques

Cleaning and Mounting :

For optimum results, cylinders, sleeves (if used) and plates should be clean and dry. Grease, oil or ink should be removed using a mild solvent; then all surfaces should be cleaned with a 50:50 mixture of Isopropanol and water. (Note: when using solvents, be sure to follow the manufacturer's directions and precautions for handling such materials). **Do not use** ink thinners or mixed solvents for cleaning purposes.

Surface uniformity is important for consistent adhesion; scratches, nicks and dents can cause variations in adhesion, leading to removability problems or flagging.

Where small-diameter cylinders are used, and there is time between plate mounting and use, then wrapping the plate

with polythene after mounting will enable the bond to build to full strength, and prevent plate lifting at the edge. If the job is for immediate use, then a higher density mounting tape (with stronger adhesive) may be required.

Occasionally, edge sealants may be required to prevent ink or solvents from causing plate lift, particularly on long runs where plates are cleaned during the run. 3M can supply low-temperature hot-melt adhesives to edge-seal, or suitable single-sided adhesive tapes.

Removal:

If the plate is to be removed from the cylinder or sleeve after the run, the normal order is to take the plate off the adhesive first, and then strip the adhesive from the cylinder or sleeve. Lifting should start at the top or bottom edge, and the plate kept at a low angle (less than 45 degrees) to the cylinder. Pulling at a slow pace will cause clean removal without plate damage.

With "E" Series pulling at a normal faster pace will help with easier, faster plate removal.

The tape will remove cleanly using the same technique.

With non E Series, the tape will remove cleanly using the same technique

The tape will remove cleanly using the same technique and the cylinder or sleeve will require only the Isopropanol/water wash before its next use.

Since the adhesives used in 3M plate mounting tapes are carefully selected for the balance of strength in the print run with removability after it, adhesion promoters and reducers are not normally required. If adhesion needs reducing, then a 50:50 mix of ink extender and alcohol, or wood shellac and alcohol are suitable.

Storage:

All 3M plate mounting tapes are batch numbered, and should be used in order of purchase. Rolls should be kept in their original cartons until required for use, and part-used rolls should be returned to the box until next required. Rolls that have end supporting blocks should be kept with the blocks in place, to protect against edge damage and subsequent wastage.

Solutions for the Flexographic Industry:

3M supplies a range of innovative products to make operations simpler and cost effective

- 3M™ Roller wrap/antislip tapes
- 3M™ Scotch-Weld™ Adhesives 3762LM, 3776LM or 3792LM. Used with 3M™ Polygun™ LT Applicator to seal plate edges against ink and solvent penetration that causes edge lifting.
- 3M™ Primer 94. Helps hold the leading and trailing edges of the plate to prevent edge lifting.
- 3M™ Aluminum Foil Tape 425, 3M™ Vinyl or 3M™ Polyester Film Tape 850. Seals plate edges against ink and solvent penetration that causes edge lifting.
- 3M™ Citrus base cleaner for roller cleaning
- Scotch-Brite™ abrasive pads for cylinder maintenance.

Important Notice to Purchasers

The statements and technical information contained herein are based on tests and data which 3M believe to be reliable, but the accuracy or completeness of such statements and technical information is not guaranteed. 3M will, as its option replace or refund the price of such quantity of 3M products as are defective in material or manufacture. This is your exclusive remedy. In no case will 3M be responsible for any other damage or loss. User is responsible for determining that the 3M product is fit for the user's particular application.

These products are manufactured under a 3M quality system registered to ISO 9002 standards.

For more information, please contact your nearest 3M Dealer.

Distributor



Printed on recycled paper

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