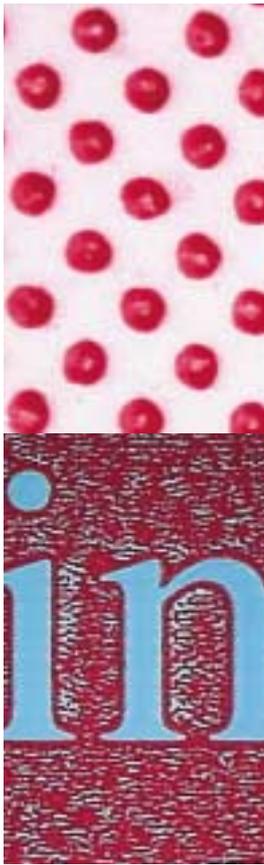




3M™ Flexographic Mounting Tapes for Combination Printing



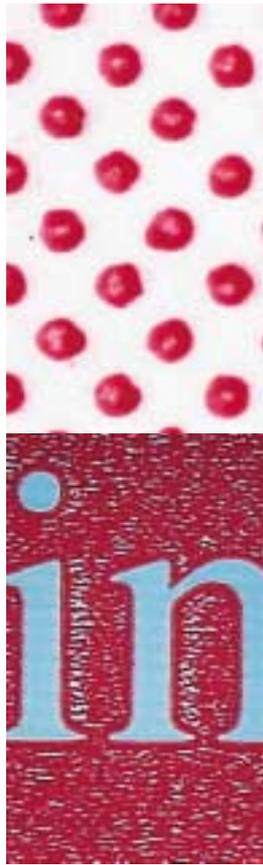
Mounting tape selection



11 Series

For the finest dots, with **minimum dot gain and the sharpest process image**, a low-density peach-coloured foam gives controlled ink transfer at high running speeds. Combining this with a thin but strong film layer gives a product with excellent handling. The tape can be laid smoothly and easily. The plate can be positioned, adjusted and repositioned if required. The plate side adhesive is strong enough to hold the plate stable through a long production run. When the job is finished, the plate will remove cleanly from the tape, and then the tape from the cylinder or sleeve.

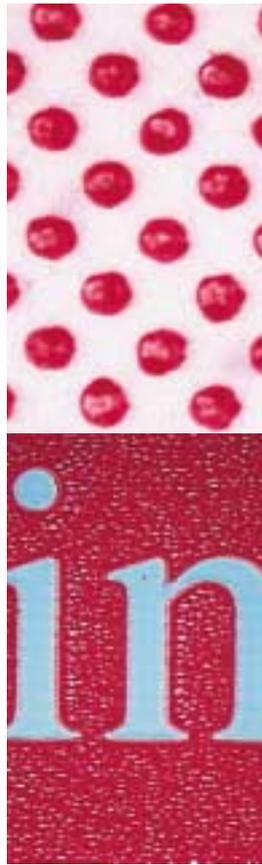
Tape colour : Peach.



19 Series

When process and **highlight half tones are combined with fine lines or small solid areas on the same plate**, then a little more density is required to make the clean lines, and transfer sufficient ink, without significant added dot gain. The same plate and cylinder side adhesives as the 11 Series gives the same controlled handling, but the foam is shaded pink for easy identification by the plate mounter. After printing, the cylinder with the plate in position can be removed, the plate cleaned of ink, and then placed in storage as a unit; the bond will be fully functional for further runs.

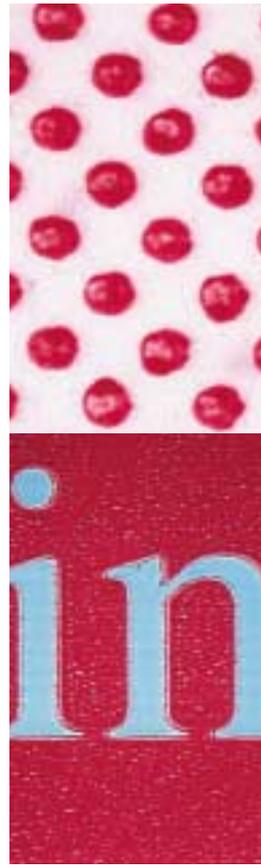
Tape colour : Pink.



10 Series

When **line, solid and half tones are mixed on the plate**, then the standard medium density foam gives the best results in all areas. The sheer flexibility of this white foam is combined with a wide range of foam thickness, and choice of adhesive on the plate side. "M" series adhesive has lower plate side adhesion for thin plates, or for plates with large solid areas, to make plate removal easier after the run. For the contract printer looking for an all-purpose foam for any job that comes into the shop, 10M foam tapes are the standard to compare all others against.

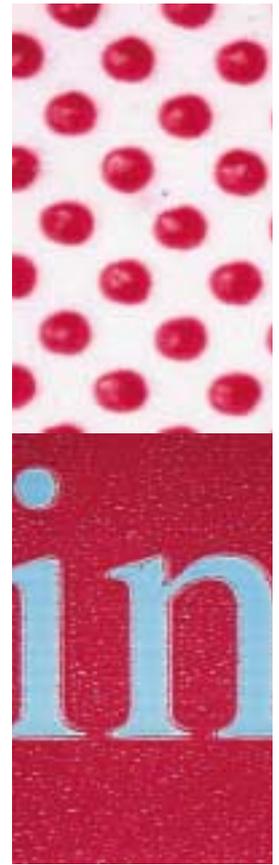
Tape colour : White.



17 Series

When **line, solids and opaque background colour runs at the highest machine speeds**, then the extra resilience in new 17 Series helps to reduce bounce on the press, prints cleaner fine-type reverses, yet still delivers rich half-tones if required. With "M" series plate side adhesive for ease of plate placement and removal, and a distinctive Teal green foam colour for clear identification, this is another excellent choice for the contract printer.

Tape Colour : Teal.



18 Series

For **line, solids, and opaque white background colour**, the higher density foam in this series sets a new standard of technical excellence. Replacing an earlier generation of elastomeric foams, this series runs very fast with minimum bounce, and lays down a solid ink coat with almost no pinholing. The blue foam stands out to the mounter, and the "M" series plate side adhesive maintains removability even after the longest print run. For transferring ink, and lots of it, or a finishing varnish layer, this is the tape to use.

Tape colour : Blue.

NOTE: Printed samples above show the 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 • 180m/min • Anilox 600 lpi (3.0 bcm) • 0.38mm/.015" tape • 1.70mm/.067" photopolymer plates

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

3M offers mounting tapes for virtually every application

Along with the combination printing tapes, 3M offers the Cushion-Mount™ Plus 1115 and 1120 tapes that are optimized for process printing. These tapes are excellent for reproduction of halftone dots and screens.

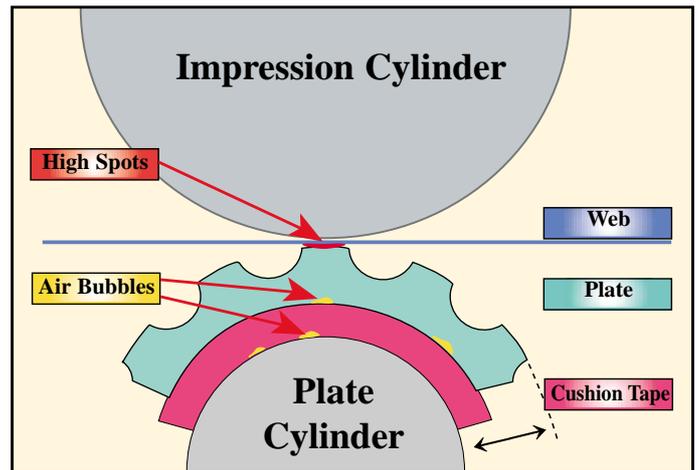
3M Flexographic Mounting Tape Selection Guide

Print Type						
Key features						
EA Liner			E1015 E1020			0.38 0.50
High plate side adhesion			1015 1020 1040 1060			0.38 0.50 1.00 1.50
Medium plate side adhesion	1115 1120	1915M 1920M	1015M 1020M 1060M	1715M 1720M	1815M 1820M	0.38 0.50 1.50

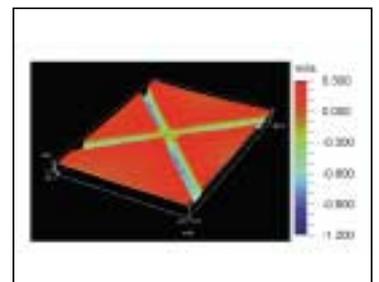
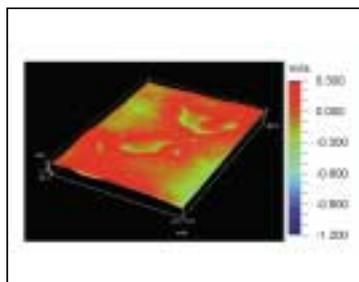
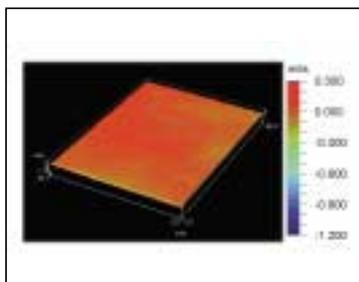
New E10 Series - Exclusive liner prevents air entrapment by forming microchannels in the adhesive

- Proprietary 3M technology
- Crosshatched pattern creates a continuous and permanent 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 lift 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. 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

- Roller wrap/antislip tapes
- Jet Melt™ adhesive for plate edge sealing
- Citrus base cleaner for roller cleaning
- Maintenance Sorbent for cleaning up spills/leaks
- Scotch-Brite™ abrasive pads for cylinder maintenance.

Important Notice to Purchasers

The statements and technical information contained herein are based on texts and data which 3M believe to be reliable, but the accuracy or completeness of such statements and technical information is not guaranteed. 3M will 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.

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