



# Cushion-Mount™

## 933 Cushion-Mount Plate Mounting System

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### Product Data Sheet

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Updated : March 1996  
Supersedes : January 1994

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**Product Description**      A double coated elastomeric foam tape specifically designed for mounting flexographic printing plates.      A firm rubber-resin pressure sensitive adhesive which features good initial adhesion and high holding power with minimal bond build-up which allows clean, one-piece tape removal after use.

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**Physical Properties**  
Not for specification purposes

<b>Adhesive Type</b>	Firm Rubber Resin	<b>3M ref</b> : R-20
<b>Carrier</b>	Elastomeric Foam	
<b>Thickness</b> (ASTM D-3652) Tape Liner Total	380 µm 100 µm 480 µm	
<b>Release Liner</b>	Tan Polycoated Paper	
<b>Tape Colour</b>	Off White	
<b>Shelf Life</b>	12 months from date of despatch by 3M when stored in the original carton at 21°C (70°F) & 50 % Relative Humidity	

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**Performance Characteristics**  
Not for specification purposes

<b>Temperature Performance</b> Max : Minutes / Hours Max : Days / Weeks	93 °C 65 °C	
<b>Solvent Resistance</b>	High	
<b>UV Light Resistance</b>	Not recommended for direct exposure to sunlight or other sources of ultra violet light.	

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### Additional Product Information

In flexographic plate mounting "Cushion-Mount" tape is applied directly to the printing cylinder and the printing plates are mounted on the lined side of the tape.

"Cushion-Mount" tape is designed to give the flexographic printer a reduction in proofing and mounting time. Tests have indicated that "Cushion-Mount" tape can be compressed up to 4 thou (0.10 mm) without distorting the printing image. This allows much greater latitude in make ready procedure without sacrificing printing quality.

"Cushion-Mount" tape enables production speed to be increased by reducing the cylinder bounce normally associated with many plate designs.

The adhesive system provides excellent adhesion to photopolymer and rubber printing plates and to aluminium, magnesium, and steel printing cylinders. The adhesive system allows excellent repositionability during mounting and proofing, yet no lifting occurs during printing.

The internal web reinforcement provides excellent handling characteristics as well as one piece removability.

The use of supplemental adhesives or solvents to attempt to improve tape adhesion is not required or recommended. Testing has shown that these procedures can often reduce tape holding power.

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### Application Techniques

1. Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure and proper rubdown technique develops better adhesive to surface contact thus improving the bond strength.

2. To obtain optimum adhesion, the bonding surfaces must be clean, dry and well unified. Some typical surface cleaning solvents are isopropyl alcohol and heptane. Follow manufacturers precautionary warnings and suggested handling procedures while using solvents.

3. 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.

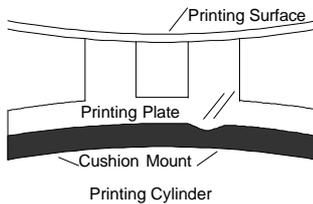
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### Application Uses

Typical stickyback applications in the mounting of flexographic printing plates particularly in multicolour process printing where the cylinders are taped and the plates are applied to the tape.

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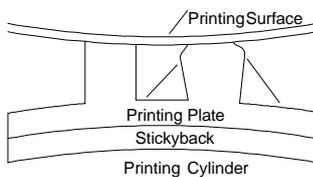


"Cushion-Mount" tapes compress to compensate for slight irregularities in printing plate thickness or slightly "off" tolerances in printing equipment. In most instances the plate can be mounted on the cylinder, brought into the correct compression and placed on the printing press without further adjustment as to height. This provides an enormous benefit to the printer in the reduced make-ready time.

933 "Cushion-Mount" tape has identical rubber resin adhesives on each side of the elastomeric foam carrier. This gives the flexographic printer the freedom to mount the tape cylinder-first or plate-first, depending on the print job. 933 also has a web reinforcement on each side of the elastomeric foam. This gives the product greater dimensional stability for easier handling and clean removability from the cylinder and plate.

After "Cushion-Mount" tape has been applied to the cylinder it also provides advantages over standard Stickyback. The cushioning effect provides a shock absorbing action to the printing plate. That is, on some plates that have large solids or horizontal bars, you sometimes get a vibration of the printing cylinder as the plate turns and hits the large solid areas. This causes a vibration effect in the cylinder giving distortion to the printing image. "Cushion-Mount" tape reduces vibration, and, therefore allows higher production speeds during the printing operation.

### Standard Stickyback



Printing plates mounted on a standard 15 mil or 20 mil Stickyback, must go through a make ready process after they have been applied to the printing cylinder. This is very important because rubber will not compress to compensate for any high or low areas on the plate or cylinder. Since rubber will not compress if you squeeze it down to fill in low areas, you will distort the rest of the plate.

Conversely, if you have a high area on the plate and squeeze it down, you will also have a distortion in the printing image. Because of this, once the plate is applied to the Stickyback and cylinder, you proof it, find the areas that need to be raised or lowered, remove the plate, and take the necessary action. This is a very time consuming job and requires a highly skilled operator on the proofer-mounter equipment.

Process printing also requires extremely accurate mounting as the dot on the printing plate will distort with the slightest amount of compression. A slightly out-of-round cylinder or a bearing that is just a little bit loose will cause a rather poor printing image.

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