

July, 2010

## 3M™ Cushion-Mount™ Plus Plate Mounting Tapes with Easy Mount Adhesive E1820

### Product Description

3M™ Cushion-Mount™ Plus Plate Mounting Tapes with Easy Mount Adhesive are designed for mounting flexographic print plates to cylinders or sleeves. This family of foam mounting tapes provides excellent print quality for process, combination, and solid printing.

### Product Features

- Offers a complete range of foam densities providing excellent print quality from process to combination to solid printing.
- Consistent caliper control allows the printer to use multiple foam densities on a print job to optimize print quality.
- Use the 3M proprietary Easy Mount liner, creating micro-channels in both adhesive surfaces. The crosshatched pattern creates a continuous and permanent network of micro-channels in the adhesive, allowing air to escape from between the tape and cylinder/sleeve and between the tape and plate.
- The adhesive on the lined side (plate side) of the tape is designed for mounting of photopolymer plates, excellent holding power on-press and clean plate removal when demounting.
- The adhesive on the non-lined side (cylinder side) of the tape is designed for mounting to flexographic printing cylinders or sleeves, providing easy application at mounting and clean removability when demounting.



## Technical Information Note

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

## Typical Physical Properties

Property	Values	
Tape Thickness	0.559 mm	22 mil
Application Thickness	0.508 mm	20 mil
Film Thickness	0.114 mm	4.5 mil
Lot to Lot Tolerance	± 0.038 mm	± 1.5 mil
Typical Application Area Caliper Variation	± 0.01 mm	± 0.4 mil
Adhesive	Differential Acrylate	
Adhesive Carrier	Firm Blue Foam	
Density	512 kg/m <sup>3</sup>	32 lb/ft <sup>3</sup>
Type of Printing	Combination of solid and line with minimal tone reproduction	
Compression Deflection: 10% Compression	241 kPa	35 lb/in <sup>2</sup>
Compression Deflection: 25% Compression	414 kPa	60 lb/in <sup>2</sup>

Peel Adhesion (Non-linered side)		Substrate
6 N/cm	55 oz/in	Stainless Steel
7.1 N/cm	65 oz/in	Composite Sleeve
7.5 N/cm	68 oz/in	Polyester (PET)
7.7 N/cm	70 oz/in	Urethane - A
6.6 N/cm	60 oz/in	Urethane - B

Property: Peel Adhesion (Non-linered side)  
Method: ASTM D3330 (modified)

## Typical Cured Characteristics

**Shore A Hardness:** 72

### Methods

ASTM D2240

### Typical Performance Characteristics

Property	Values		Method	Substrate
Peel Adhesion (Lined Side)	2.8 N/cm	25 oz/in	ASTM D3330 (modified)	Photopolymer
Heat Resistance	49 °C	120 °F		

### Solvent Resistance

Water - Excellent  
 Alkanes - Excellent  
 Alcohols - Good  
 Acetates - Fair

### Available Sizes

Property	Values	
Standard Roll Length	22.9 m	25 yd
Minimum Available Width	50.8 mm	2 in
Maximum Available Width	1371.6 mm	54 in
Normal Slitting Tolerance	± 0.794 mm	± 1/32 in

### Storage and Shelf Life

Store under normal conditions of 60° to 80°F (16° to 27°C) and 40 to 60% relative humidity in the original carton. To obtain best performance, use within two years from date of manufacture.

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## Information

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## Trademarks

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## References

### Safety Data Sheet (SDS)

[https://www.3m.com/3M/en\\_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en\\_US&co=ptn&q=E1820](https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=E1820)

## Family Group

	E1815	E1715	E1720	E1515	E1520	E1015	E1020	E1040	E1060	E1820	E1320	E1915	E1915S
Tape Thickness (mm)	0.432	0.432	0.559	0.432	0.559	0.432	0.559	1.017	1.525	0.559	0.559	0.432	0.559
Application Thickness (mm)	0.381	0.381	0.508	0.381	0.508	0.381	0.508	1.016	1.524	0.508	0.508	0.381	0.508
Film Thickness (mm)	0.114	0.114	0.114	0.114	0.114	0.114	0.114	0.114	0.114	0.114	0.114	0.114	0.114
Adhesive	Differential Acrylate	Differential Acrylate	Differential Acrylate	Differential Acrylate	Differential Acrylate	Differential Acrylate	Differential Acrylate	Differential Acrylate	Differential Acrylate	Differential Acrylate	Differential Acrylate	Differential Acrylate	Differential Acrylate

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Family Group (continued)

	E1815	E1715	E1720	E1515	E1520	E1015	E1020	E1040	E1060	E1820	E1320
Adhesive Carrier	Firm Blue Foam	Medium Firm Teal Foam	Medium Firm Teal Foam	Medium Purple Foam	Medium Purple Foam	Standard White Foam	Standard White Foam	Standard White Foam	Standard White Foam	Firm Blue Foam	Medium Soft Yellow Foam
Shore A Hardness	72	68	68	67	67	65	65	40	38	72	63
Type of Printing	Combination of solid and line with minimal tone reproduction	Combination of solid and line with tone reproduction and fine reverses	Combination of solid and line with tone reproduction and fine reverses	Combination of solid and line with tone reproduction and fine reverses	Combination of solid and line with tone reproduction and fine reverses	Combination of solid and line with tone reproduction where solids and process are equally important	Combination of solid and line with tone reproduction where solids and process are equally important	Combination of solid and line with tone reproduction where solids and process are equally important	Combination of solid and line with tone reproduction where solids and process are equally important	Combination of solid and line with minimal tone reproduction	Combination of solid and line with tone reproduction where process printing is important

ISO Statement

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



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