

#### July, 2010

# 3M<sup>™</sup> Cushion-Mount<sup>™</sup> Plus Plate Mounting Tape with Easy Mount Adhesive High Plateside Adhesion E1315H

#### **Product Description**

3M<sup>™</sup> Cushion-Mount<sup>™</sup> Plus Plate Mounting Tapes with Easy Mount Adhesive High Plateside Adhesion 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 linered side (plate side) of the tape is designed for mounting of photopolymer plates, excellent holding power on-press with high plateside adhesion and clean plate removal when demounting.

• The adhesive on the non-linered 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.



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## **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                             | 0.432 mm   | 17 mil                |  |  |  |  |
| Application Thickness                      | 0.381 mm   | 15 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                           | Differential Acrylate  |                       |  |  |  |  |
| Density                                    | 433 kg/m³  | 27 lb/ft <sup>3</sup> |  |  |  |  |
| Type of Printing                           | Combination of solid and line with tone reproduction where process printing is important |                       |  |  |  |  |
| Compression Deflection: 10% Compression    | 49 kPa   | 12 lb/in²             |  |  |  |  |
| Compression Deflection: 25% Compression    | 172 kPa  | 25 lb/in²             |  |  |  |  |

| Peel Adhesion (Non-linered side) |          | Substrate        |  |  |  |  |
|----------------------------------|----------|------------------|--|--|--|--|
| 6 N/cm                           | 55 oz/in | Stainless Steel  |  |  |  |  |
| 7.1 N/cm                         | 65 oz/in | Composite Sleeve |  |  |  |  |
| 6.6 N/cm                         | 60 oz/in | Polyester (PET)  |  |  |  |  |
| 8.8 N/cm                         | 80 oz/in | Urethane - A     |  |  |  |  |
| 7.1 N/cm                         | 65 oz/in | Urethane - B     |  |  |  |  |

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

# **Typical Cured Characteristics**

#### Shore A Hardness: 63

Methods

ASTM D2240

# **Typical Performance Characteristics**

| Property                     | Values   | Jes      |                       | Substrate    |  |
|------------------------------|----------|----------|-----------------------|--------------|--|
| Peel Adhesion (Linered Side) | 7.7 N/cm | 70 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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#### References

## Safety Data Sheet (SDS)

## **Family Group**

|                               | E1815H                       | E1715H                       | E1720H                       | E1515H                       | E1520H                       | E1015H                       | E1020H                       | E1040H                       | E1060H                       | E1820H                       | E1320H                       | E1915H                       | E1915HS                      |
|-------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|
| 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<br>(mm) | 0.381                        | 0.381                        | 0.508                        | 0.381                        | 0.508                        | 0.381                        | 0.508                        | 1.106                        | 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                      | Differen<br>tial<br>Acrylate |

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# Family Group (continued)

|                  | E1815H  | E1715H  | E1720H  | E1515H  | E1520H  | E1015H  | E1020H  | E1040H  | E1060H  | E1820H  | E1320H   |
|------------------|---|---|---|---|---|---|---|---|---|---|--|
| Adhesive Carrier | Firm Blue<br>Foam   | Medium<br>Firm Teal<br>Foam   | Medium<br>Firm Teal<br>Foam   | Medium<br>Purple<br>Foam  | Medium<br>Purple<br>Foam  | Standard<br>White<br>Foam   | Standard<br>White<br>Foam   | Standard<br>White<br>Foam   | Standard<br>White<br>Foam   | Firm Blue<br>Foam   | Differentia<br>I Acrylate  |
| Shore A Hardness | 72  | 68  | 68  | 67  | 67  | 65  | 65  | 40  | 38  | 72  | 63   |
| Type of Printing | Combinati<br>on of solid<br>and line<br>with<br>minimal<br>tone<br>reproducti<br>on | Combinati<br>on of solid<br>and line<br>with tone<br>reproducti<br>on and<br>fine<br>reverses | Combinati<br>on of solid<br>and line<br>with tone<br>reproducti<br>on where<br>solids and<br>process<br>are<br>equally<br>important | Combinati<br>on of solid<br>and line<br>with<br>minimal<br>tone<br>reproducti<br>on | Combinati<br>on of solid<br>and line<br>with tone<br>reproducti<br>on where<br>process<br>printing is<br>important |

# **ISO Statement**

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