



# Double Coated Paper Tapes

## 401B • 410B

Technical Data

January, 2005

### Product Description

3M™ Double Coated Paper Tapes 401B and 410B utilize a natural rubber adhesive system that offers good to excellent adhesion to many types of surfaces.

### Construction

| Products                                     | 3M Tape 401B            | 3M Tape 410B            |
|--|-------------------------|-------------------------|
| Adhesive Family:                             | 860                     | 850                     |
| Adhesive Type:                               | Natural Rubber          | Natural Rubber          |
| Adhesive Carrier:                            | Treated Paper           | Treated Paper           |
| Tape Color:                                  | Off-white               | Off-white               |
| Liner Color:                                 | Green Plaid Paper       | Green Plaid Paper       |
| Approximate Thickness:                       |                         |                         |
| Tape Thickness<br><i>(without the liner)</i> | 0.009 in.<br>(0.23 mm)  | 0.005 in.<br>(0.13 mm)  |
| Liner Thickness                              | 0.003 in.<br>(0.075 mm) | 0.003 in.<br>(0.075 mm) |

3M™ Adhesive 850 is a medium-firm rubber-resin pressure sensitive adhesive system and features an excellent balance of high initial adhesion and good holding power to a wide variety of materials.

3M™ Adhesive 860 is a soft rubber-resin pressure-sensitive adhesive system and features high initial adhesion and good holding power to a wide variety of materials.

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## Typical Physical Properties and Performance Characteristics

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

| Products  | 3M™ Double Coated Paper Tape 401B   | 3M™ Double Coated Paper Tape 410B |
|---|---|-----------------------------------|
| Adhesion to Steel:<br>ASTM D 3330 modified<br>90° peel, 72 hr. RT dwell | 65 oz./in.<br>(71 N/100 mm)   | 55 oz./in.<br>(60 N/100 mm)       |
| Relative High Temperature<br>Operating Ranges:                          |   |                                   |
| Long Term (days, weeks)   | 150°F<br>(65°C)   | 150°F<br>(65°C)                   |
| Short Term (minutes, hours)   | 180°F<br>(82°C)   | 200°F<br>(93°C)                   |
| Relative Solvent Resistance:  | Medium  | Medium                            |
| U.V. Resistance:  | Not recommended for direct exposure to sunlight or other sources of ultra violet light. |                                   |

## Available Sizes

| Available Lengths<br>(Subject to Minimum<br>Order Requirements): | 3M Tape 401B           | 3M Tape 410B           |
|--|------------------------|------------------------|
| Standard   | 36 yds.<br>(32.9 m)    | 36 yds.<br>(32.9 m)    |
| Maximum  |                        |                        |
| 1/4 to 3/8 in. widths  | 144 yds.<br>(132 m)    | 144 yds.<br>(132 m)    |
| 3/8 to 1/2 in. widths  | 144 yds.<br>(132 m)    | 144 yds.<br>(132 m)    |
| 1/2 in. to max.  | 360 yds.<br>(329 m)    | 360 yds.<br>(329 m)    |
| Available Widths<br>(Subject to Minimum<br>Order Requirements):  |                        |                        |
| Minimum  | 1/4 in.<br>(6.35 mm)   | 1/4 in.<br>(6.35 mm)   |
| Maximum  | 48 in.<br>(1218 mm)    | 48 in.<br>(1218 mm)    |
| Normal Slitting Tolerance:                                       | ± 1/32 in.<br>(0.8 mm) | ± 1/32 in.<br>(0.8 mm) |
| Core Size (ID):  | 3.0 in.<br>(76.2 mm)   | 3.0 in.<br>(76.2 mm)   |

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- Application Techniques**
- Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure helps develop better adhesive contact and improve bond strength.
  - To obtain optimum adhesion, the bonding surfaces must be clean, dry and well unified. Typical surface cleaning solvents are isopropyl alcohol and water (rubbing alcohol) or heptane.\*
  - 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.
- \*Be sure to follow manufacturer's safety precautions and directions for use when using solvents.

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- Application Ideas**
- Splicing and core starting of papers, foils, films, fabrics etc.
  - Mounting rubber or photopolymer printing plates to print cylinders.
  - Attaching of golf club grips.
  - Temporary holding while parts are being finished in the milling process.

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**Application Equipment** For dispenser information, contact your local 3M sales representative, or the toll free 3M sales assistance number at 1-800-362-3550.

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**Storage** Store in original cartons at 70°F (21°C) and 50% relative humidity.

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**Shelf Life** When stored under proper conditions, product retains its performance and properties for one year from date of manufacture.

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## Certification/ Recognition

**MSDS:** 3M has not prepared MSDSs for these products which are not subject to the MSDS requirements of the Occupational Safety and Health Administration's Hazard Communication Standard, 29 C.F.R. 1910.1200(b)(6)(v). When used under reasonable conditions or in accordance with the 3M directions for use, these products should not present a health and safety hazard. However, use or processing of the products in a manner not in accordance with the directions for use may affect their performance and present potential health and safety hazards.

**TSCA:** These products are defined as articles under the Toxic Substances Control Act and therefore, are exempt from inventory listing requirements.

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## Product Use

All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

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**ISO 9001:2000**

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2000 standards.



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