

November, 2009

# 3M<sup>™</sup> Double Coated Paper Tape 401M

# **Product Description**

3M™ Double Coated Paper Tape 401M utilizes a natural rubber adhesive system that offers good to excellent adhesion to many types of surfaces.



## **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	
Color	Off-white	
Total Tape Thickness without liner	0.23 mm	9 mil
Adhesive Type	Natural Rubber	
Adhesive Family	860 (3M <sup>™</sup> 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.)	
Adhesive Carrier	Treated Paper	
Liner	Paper	
Liner Thickness	0.075 mm	3 mil
Liner Color	Green Plaid	

# **Typical Performance Characteristics**

Property	Values		Method	Dwell/Cure Time	Substrate
90° Peel Adhesion	7.1 N/cm	65 oz/in	ASTM D3330	72 hr @ Room Temperature	Steel
Solvent Resistance	Medium				
UV Resistance	Good				
Environmental Advantage	This product uses a solvent free manufacturing process.				

Relative High Temperature Operating Ranges		Test Condition
82 °C	180 °F	Short Term (minutes, hours)
65 °C	150 °F	Long Term (days, weeks)

Property: Relative High Temperature Operating Ranges

#### **Available Sizes**

Please contact your 3M sales representative or contact 3M customer service at 1-800-362-3550 for details on available sizes.

## Handling/Application Information

## **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.

## **Application Techniques**

Bond strength is dependent upon the amount of adhesive-to-surface contact. Firm application pressure helps ensure better adhesive contact and improve bond strength. To obtain optimum adhesion, the bonding surfaces must be clean, dry, and uniform. Some typical surface cleaning solvents are isopropyl 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.

\*Note: When using solvents, extinguish all ignition sources, including pilot lights, and follow the manufacturer's precautions and directions for use.

## **Application Equipment**

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

#### Storage and Shelf Life

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

If stored under proper conditions, product retains its performance and properties for 18 months from date of manufacture.

#### **Trademarks**

3M is a trademark of 3M Company.

#### References

#### Safety Data Sheet (SDS)

 $https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA\&msdsLocale=en_US\&co=ptn\&q=401M/search/results/?gsaAction=msdsSRA\&msdsLocale=en_US\&co=ptn\&q=401M/search/results/?gsaAction=msdsSRA\&msdsLocale=en_US\&co=ptn\&q=401M/search/results/?gsaAction=msdsSRA\&msdsLocale=en_US\&co=ptn\&q=401M/search/results/?gsaAction=msdsSRA\&msdsLocale=en_US\&co=ptn\&q=401M/search/results/?gsaAction=msdsSRA\&msdsLocale=en_US\&co=ptn\&q=401M/search/results/?gsaAction=msdsSRA\&msdsLocale=en_US\&co=ptn\&q=401M/search/results/?gsaAction=msdsSRA\&msdsLocale=en_US\&co=ptn\&q=401M/search/results/?gsaAction=msdsSRA\&msdsLocale=en_US\&co=ptn\&q=401M/search/results/?gsaAction=msdsSRA\&msdsLocale=en_US\&co=ptn\&q=401M/search/results/?gsaAction=msdsSRA\&msdsLocale=en_US\&co=ptn\&q=401M/search/results/?gsaAction=msdsSRA\&msdsLocale=en_US\&co=ptn\&q=401M/search/results/?gsaAction=msdsSRA\&msdsLocale=en_US\&co=ptn\&q=401M/search/results/?gsaAction=msdsSRA\&msdsLocale=en_US\&co=ptn\&q=401M/search/results/?gsaAction=msdsSRA\&msdsLocale=en_US\&co=ptn\&q=401M/search/results/?gsaAction=msdsSRA\&msdsLocale=en_US\&co=ptn\&q=401M/search/results/.gsaAction=msdsSRA\&msdsLocale=en_US\&co=ptn\&q=401M/search/results/.gsaAction=msdsSRA\&msdsLocale=en_US\&co=ptn\&q=401M/search/results/.gsaAction=msdsSRA\&msdsLocale=en_US\&co=ptn\&q=401M/search/results/.gsaAction=msdsSRA\&msdsLocale=en_US\&co=ptn\&q=401M/search/results/.gsaAction=msdsSRA\&msdsLocale=en_US\&co=ptn\&q=401M/search/results/.gsaAction=msdsSRA\&msdsLocale=en_US\&co=ptn\&q=401M/search/results/.gsaAction=msdsSRA\&msdsLocale=en_US\&msdsSRA\&$ 

## **Family Group**

	401M	410M
Relative High Temperature Operating Ranges (°C) Test Condition: Short Term (minutes, hours)	82	93
Relative High Temperature Operating Ranges (°C) Test Condition: Long Term (days, weeks)	65	65
Color	Off-white	Off-white

Table continued on next page

#### Family Group (continued)

	401M	410M
Total Tape Thickness without liner (mm)	0.23	0.15
Adhesive Type	Natural Rubber	Natural Rubber
Adhesive Family	860 (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.)	860 (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.)
Adhesive Carrier	Treated Paper	Treated Paper
Liner	Paper	Paper
Liner Thickness (mm)	0.075	0.075
Liner Color	Green Plaid	Green Plaid

### **ISO Statement**

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

#### Recognition/Certification

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.

## **Technical Information**

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

#### **Product Selection and Use**

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