



# Polyethylene Tape

## 5421 • 5423

### Technical Data

July, 2005

**Product Description** 3M™ Polyethylene Tape 5421 and 5423 has a rubber adhesive which provides an excellent abrasion resistant surface.

| Product Construction | Backing                                  | Adhesive | Liner               | Color       | Standard Roll Length |
|----------------------|------------------------------------------|----------|---------------------|-------------|----------------------|
|                      | Ultra-high molecular weight polyethylene | Rubber   | 60# densified kraft | Translucent | 18 yds. (16.4 m)     |

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

#### ASTM Test Method

##### 3M tape 5421

|                                          |                                  |        |
|------------------------------------------|----------------------------------|--------|
| Adhesion to Steel:                       | 26 oz./in width (28 N/100 mm)    | D-3330 |
| Tensile Strength:                        | 30 lbs./in. width (526 N/100 mm) | D-3759 |
| Elongation at Break:                     | 275%                             | D-3759 |
| Backing Thickness:                       | 5.0 mils (0.13 mm)               | D-3652 |
| Total Tape Thickness:<br>(without liner) | 6.7 mils (0.17 mm)               | D-3652 |
| Liner Thickness:                         | 3.5 mils (0.09 mm)               | D-3652 |
| Temperature Use Range:                   | -30° to 225°F (-34° to 107°C)    |        |

##### 3M tape 5423

|                                          |                                  |        |
|------------------------------------------|----------------------------------|--------|
| Adhesion to Steel:                       | 26 oz./in width (28 N/100 mm)    | D-3330 |
| Tensile Strength:                        | 55 lbs./in. width (963 N/100 mm) | D-3759 |
| Elongation at Break:                     | 300%                             | D-3759 |
| Backing Thickness:                       | 10 mils (0.25 mm)                | D-3652 |
| Total Tape Thickness:<br>(without liner) | 11.7 mils (0.30 mm)              | D-3652 |
| Liner Thickness:                         | 3.5 mils (0.09 mm)               | D-3652 |
| Temperature Use Range:                   | -30° to 225°F (-34° to 107°C)    |        |

### Features

- Thick caliper UHMW polyethylene tape for extended service life as a protective surface against extreme wear.
- UHMW polyethylene is a thermoplastic that has a unique combination of properties which make it ideal for many tough impact wear or sliding applications.
- Liner makes it ideal for fabricating or die-cutting into various lengths and shapes.
- Outstanding abrasion resistance so will outwear many types of PTFE and other materials in sliding applications.
- Low coefficient of friction exceeded only by the PTFE's.
- Self-lubricating so can often be used where lubrication is not possible because of contamination.
- Sound damping for high energy absorption capacity helps reduce noise levels in machinery and equipment.

# 3M™ Polyethylene Tape

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## Application Ideas

- Conveyor flat guide rails
- Discharge chutes
- Doctor blades
- Former noses
- Protecting aluminum sheets on stretch forming presses
- Spray booth liners
- Tank and bin liners
- Drawer and cabinet slides
- Feed and grain chutes

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## Storage

Store under normal conditions of 60° to 80°F (16° to 27°C) and 40 to 60% R.H. in the original carton.

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## Shelf Life

To obtain best performance, use this product within 18 months from date of manufacture.

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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.



### Industrial Business Industrial Adhesives and Tapes Division

3M Center, Building 21-1W-10, 900 Bush Avenue  
St. Paul, MN 55144-1000  
800-362-3550 • 877-369-2923 (fax)  
www.3M.com/industrial



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