



UHMW Polyethylene Tape

5421

Technical Data

Product Description An ultra-high molecular weight polyethylene film coated with 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 | Transparent | 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 |
|--|---|
| 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: (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) |

- General Information**
- The liner on 5421 tape makes it ideal for fabricating or die-cutting into various lengths and shapes.
 - UHMW polyethylene is a thermoplastic that has a unique combination of properties which make it ideal for many tough impact wear or sliding applications. Within its operational temperature range, UHMW polyethylene tape can provide the following advantages:
 - A. Outstanding abrasion resistance:** Will outwear many types of PTFE and other materials in sliding applications.
 - B. Low coefficient of friction:** Exceeded only by the PTFE's.
 - C. Self-lubricating:** Can often be used where lubrication is not possible because of contamination.
 - D. Sound damping:** High energy absorption capacity helps reduce noise levels in machinery and equipment.

Shelf Life To obtain best performance, use this product within 18 months from date of manufacture and store under normal conditions of 60° to 80°F (16° to 27°C) and 40 to 60% R.H. in the original carton.

- Application Ideas**
- Conveyor flat guide rails
 - Discharge chutes
 - Doctor blades
 - Former noses
 - Spray booth liners
 - Tank and bin liners
 - Drawer and cabinet slides
 - Feed and grain chutes

| Features | Features | Advantages | Benefits |
|----------|---|--|---|
| | <ul style="list-style-type: none">• Tough UHMW polyethylene backing | <ul style="list-style-type: none">• Resists abrasion and wear under load• High energy absorption• Release surface for many sticky resinous or viscous materials• Low coefficient of friction• Helps prevent marking or scratching of product | <ul style="list-style-type: none">• Helps save money by reducing repairs or replacement of parts or equipment• Helps reduce noise• Helps reduce clean up and maintenance costs• Helps increase production speeds and efficiency equipment• Helps save money by reducing repairs |

Technical Information and Data

The technical information and data, recommendations, and other statements provided in this brochure are based on tests or experience which 3M believes to be reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use

Please remember that many factors can affect the use and performance of a 3M product in a particular application. The materials to be used with the 3M product, the surface preparation of those materials, the product selected for use, the conditions in which the product is used, and the time and environmental conditions in which the product is expected to perform are among the many factors that can affect the use and performance of a 3M product. Given the variety of factors that can affect the use and performance of a 3M product, some of which 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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This Industrial Tape and Specialties Division product was manufactured under a 3M quality system registered to ISO 9002 standards.



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