



## Technical Data Sheet

### 3M™ UHMW Polyethylene Tape 5423



[Product Details](#)



[Regulatory Info/SDS](#)

#### **Product Description**

3M™ UHMW Polyethylene Tapes are film coated with a rubber adhesive which provides an excellent abrasion resistant surface. These tapes feature a unique combination of properties that make it ideal for many tough impact wear or sliding applications. 3M™ UHMW-PE Film Tape 5423 is a thicker version of 3M™ UHMW-PE Film Tape 5421.

#### **Product Features**

- Tape demonstrated no evidence of wear through after Taber Abrasion at 1000 cycles, using CS-10 wheel and 1000g load when applied to S-37 mounting sheet.
- Low water vapor transmission rate <0.50 g/100in<sup>2</sup>/24hr
- Thick caliper UHMW polyethylene tape for extended service life as a protective surface against tough impact wear or sliding applications.
- Outstanding abrasion resistance so will outwear PTFE and other materials in sliding applications.
- Low coefficient of friction characteristics is exceeded only by PTFE.
- UHMW-PE tape can be used where lubrication is not possible because of contamination.
- Rubber Adhesive provides good initial tack for immediate bonding to material surface.
- Liner makes it ideal for fabricating or die-cutting into various lengths and shapes.

#### **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**

Attribute Name	Test Method	Value
Color		Translucent
Adhesive Type		Rubber
Backing		UHMW-PE Film (ultra-high molecular weight polyethylene)
Backing Thickness	ASTM D3652	0.25 mm (10 mil)
Total Tape Thickness	ASTM D3652	0.3 mm (12 mil)
Liner Thickness		0.09 mm (3.5 mil)

#### **Typical Performance Characteristics**

Attribute Name	Test Method	Temperature	Value
180° Peel Adhesion	ASTM D3330	22 °C (72 °F)	3.9 N/cm (36 oz/in) <sup>1</sup>
Elongation at Break	ASTM D3759		520 %
Tensile Strength	ASTM D3759		150 N/cm (1376 oz/in)
Long Term Temperature Resistance			107 °C (225 °F) <sup>2</sup>
Minimum Long Term Temperature Resistance			-34 °C (-30 °F) <sup>2</sup>

<sup>1</sup> 12 in/min (300 mm/min)

<sup>2</sup> Long Term (day, weeks)

## **Handling/Application Information**

### **Application Examples**

- Noise reduction between dissimilar parts.
- Reduce squeaks, rattles and other noises that occur with movement
- Lining of conveyer flat guide rails, tank and bin liners, and discharge chutes.
- Protection for aluminum sheets on stretch forming presses.
- Liners for Spray booths.
- Slick surface for easy glide for drawers and cabinets.

### **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 packaging material.

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

### **Available Sizes**

<b>Attribute Name</b>	<b>Value</b>
Standard Roll Length	32.9 m (36 yd)

### **Information**

**Technical Information:** The technical information, guidance, and other statements contained in this document or otherwise provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license under any 3M or third party intellectual property rights is granted or implied with this information.

**Product Selection and Use:** Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (e.g., OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product and appropriate safety products, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

**Warranty, Limited Remedy, and Disclaimer:** Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

**Limitation of Liability:** Except for the limited remedy stated above, and except to the extent prohibited by law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

**Disclaimer:** 3M industrial and occupational products are intended, labeled, and packaged for sale to trained industrial and occupational customers for workplace use. Unless specifically stated otherwise on the applicable product packaging or literature, these products are not intended, labeled, or packaged for sale to or use by consumers (e.g., for home, personal, primary or secondary school, recreational/sporting, or other uses not described in the applicable product packaging or literature), and must be selected and used in compliance with applicable health and safety regulations and standards (e.g., U.S. OSHA, ANSI), as well as all product literature, user instructions, warnings, and limitations, and the user must take any action required under any recall, field action or other product use notice. Misuse of 3M industrial and occupational products may result in injury, sickness, or death. For help with product selection and use, consult your on-site safety professional, industrial hygienist, or other subject matter expert. For additional product information, visit [www.3M.com](http://www.3M.com).

### **ISO Statement**

This product was manufactured under a quality system registered to ISO 9001 standards.

3M  
Industrial Adhesives and Tapes Division  
3M Center, Building 225-3S-06  
St. Paul, MN 55144-1000  
800-362-3550

3M is a trademark of 3M Company.  
©3M 2016 (7/16)