

July, 2016

## 3M™ UHMW Polyethylene Tape 5423

### 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.



# 3M™ UHMW Polyethylene Tape 5423

## 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		Method
Color	Translucent		
Total Thickness without Liner	0.3 mm	12 mil	ASTM D3652
Backing Thickness	0.25 mm	10 mil	ASTM D3652
Backing	UHMW-PE Film (ultra-high molecular weight polyethylene)		
Adhesive	Rubber		
Liner Thickness	0.09 mm	3.5 mil	ASTM D3652

## Typical Performance Characteristics

Property	Values		Method	Dwell/Cure Time	Substrate	Notes
180° Peel Adhesion	3.9 N/cm	36 oz/in	ASTM D3330	Initial	Stainless Steel	12 in/min (300 mm/min)
Tensile Strength	150 N/cm	1376 oz/in	ASTM D3759			
Elongation at Break	520 %		ASTM D3759			
Temperature Use Range	-34 to 107 °C	-30 to 225 °F				

## Available Sizes

Property	Values	
Standard Roll Length	32.9 m	36 yd

## Handling/Application Information

### Application Ideas

- 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.

# 3M™ UHMW Polyethylene Tape 5423

## 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.

## Trademarks

3M is a trademark of 3M Company.

## References

Property	Values
3m.com Product Page	<a href="https://www.3m.com/3M/en_US/company-us/all-3m-products/~ /3M-UHMW-Film-Tape-5423?N=5002385+3293242548&amp;rt=rud">https://www.3m.com/3M/en_US/company-us/all-3m-products/~ /3M-UHMW-Film-Tape-5423?N=5002385+3293242548&amp;rt=rud</a>
Safety Data Sheet (SDS)	<a href="https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&amp;msdsLocale=en_US&amp;co=ptn&amp;q=5423">https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&amp;msdsLocale=en_US&amp;co=ptn&amp;q=5423</a>

## Family Group

	5421	5423
Color	Translucent	Translucent
Total Thickness without Liner (mm)	0.17	0.3
Backing Thickness (mm)	0.13	0.25
Backing	UHMW-PE Film (ultra-high molecular weight polyethylene)	UHMW-PE Film (ultra-high molecular weight polyethylene)
Adhesive	Rubber	Rubber
Liner Thickness (mm)	0.09	0.09
Tensile Strength (N/cm)	79.6	150

## ISO Statement

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

## 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.

