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3M™ UHMW Polyethylene Tape 5421

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 5421 is a thinner version of 3M™ UHMW-PE Film Tape 5423.

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/100in²/24hr
- 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

Property	Values		Method
Color	Translucent		
Total Thickness without Liner	0.17 mm	6.7 mil	ASTM D3652
Backing Thickness	0.13 mm	5 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	Substrate
Peel Adhesion	3.7 N/cm	34 oz/in	ASTM D3330	Stainless Steel
Tensile Strength	79.6 N/cm	736 oz/in	ASTM D3759	
Elongation at Break	440 %		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.

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.

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Trademarks

3M is a trademark of 3M Company.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/company-us/all-3m-products/~/3M-UHMW-PE-Film-Tape-5421?N=5002385+3293242549&rt=rud
Safety Data Sheet (SDS)	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=5421

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

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