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3M™ UHMW Polyethylene Tape 5425

Product Description

3M™ UHMW Polyethylene Tape 5425 is a film coated with a special acrylic adhesive that is resistant to many solvents and oil. Providing high adhesion and chemical resistance in the most demanding applications.

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
- Acrylic adhesive is a firm high solvent and oil resistant adhesive which bonds best to high surface energy materials.
- UHMW polyethylene is a thermoplastic that has a unique combination of properties which make it ideal for many 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.
- Sound damping for high energy absorption capacity helps reduce noise levels in machinery and equipment.
- Liner makes it ideal for fabricating or die-cutting into various lengths and shapes.



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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	0.13 mm	5.1 mil	ASTM D3652
Backing Thickness	0.08 mm	3 mil	ASTM D3652
Backing	UHMW-PE Film (ultra-high molecular weight polyethylene)		
Adhesive	Acrylic		
Liner Thickness	0.08 mm	3.2 mil	ASTM D3652

Typical Performance Characteristics

Property	Values		Method	Dwell/Cure Time	Substrate	Notes
180° Peel Adhesion	5.3 N/cm	48 oz/in	ASTM D3330	Initial	Stainless Steel	12 in/min (300 mm/min)
Tensile Strength	44.4 N/cm	400 oz/in	ASTM D3759			
Elongation at Break	345 %		ASTM D3759			
Temperature Use Range	-34 to 107 °C	-30 to 225 °F				

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Available Sizes

Property	Values	
Standard Roll Length	32.9 m	36 yd

Handling/Application Information

Application Ideas

- Abrasion protection for rubber fuel cells.
- Gaskets exposed to many corrosive chemicals.
- Spiral wrap wire harness to resist hydraulic fluids.
- Dissimilar metal separation to help prevent wear and chemical corrosion.
- Excellent for wear surfaces where transparency is needed.
- Guide rails and chutes requiring a more durable, solvent resistant slide surface.

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	https://www.3m.com/3M/en_US/company-us/all-3m-products/~/3M-UHMW-PE-Film-Tape-5425?N=5002385+3293241379&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=5425

ISO Statement

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

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Information

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3M United States
3M Center
St. Paul, MN 55144-1000
800-362-3550
www.3M.com

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