

July, 2016

## 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/100in<sup>2</sup>/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	Substrate
Peel Adhesion	5.3 N/cm	48 oz/in	ASTM D3330	Stainless Steel
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	<a href="https://www.3m.com/3M/en_US/company-us/all-3m-products/~/~3M-UHMW-PE-Film-Tape-5425?N=5002385+3293241379&amp;rt=rud">https://www.3m.com/3M/en_US/company-us/all-3m-products/~/~3M-UHMW-PE-Film-Tape-5425?N=5002385+3293241379&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=5425">https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&amp;msdsLocale=en_US&amp;co=ptn&amp;q=5425</a>

### ISO Statement

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

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## Information

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