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3M™ UHMW Polyethylene Tape 5425

Last Revision Date: July, 2016

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.



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	Additional Information
Backing	UHMW-PE Film (ultra-high molecular weight polyethylene)	
Adhesive Type	Acrylic	
Liner Thickness	0.08 mm	
Color	Translucent	
Backing Thickness (mm)	0.08 mm	View
Test Method: ASTM D3652		
Total Tape Thickness (mil)	5.1 mil	View

Test Method: ASTM D3652

Total Tape Thickness (mm)	0.13 mm	View 
Test Method: ASTM D3652		
Backing Thickness	3 mil	View 
Test Method: ASTM D3652		
Liner Thickness	3.2 mil	

Typical Performance Characteristics

Property	Values	Additional Information
Tensile Strength	44.4 N/cm	View 
Test Method: ASTM D3759		
180° Peel Adhesion	5.3 N/cm	View 
Test Method: ASTM D3330		
Notes: 12 in/min (300 mm/min)		
180° Peel Adhesion	48 oz/in	View 
Test Method: ASTM D3330		
Notes: 12 in/min (300 mm/min)		
Tensile Strength	400 oz/in	View 
Test Method: ASTM D3759		
Elongation at Break (%)	345 %	View 
Test Method: ASTM D3759		
Long Term Temperature Resistance	107 °C	
Minimum Long Term Temperature Resistance	-34 °C	
Long Term Temperature Resistance	225 °F	

Minimum Long Term Temperature Resistance	-30 °F
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Available Sizes

Property	Values	Additional Information
Standard Roll Length	32.9 m	
Standard Roll Length	36 yd	

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.

Bottom Matter

3M
 Industrial Adhesives and Tapes Division
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 St. Paul, MN 55144-1000
 800-362-3550

Trademarks

3M is a trademark of 3M Company.

Handling/Application Information

Application Examples

- 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.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/p/d/b40070581/
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.

Information

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