



UHMW Polyethylene Tape

5425

Technical Data

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.
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Product Construction	Backing	Adhesive	Color	Standard Roll Length
	UHMW-PE Film (ultra-high molecular weight polyethylene)	Acrylic	Translucent	36 yds. (32.9 m)

Typical Physical Properties	Note: The following technical information and data should be considered representative or typical only, and should not be used for specification purposes.
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			ASTM Test Method
3M tape 5425			
Adhesion to Steel:	48 oz./in. width (53 N/100 mm)		D-3330
Tensile Strength:	25 lbs./in. width (444 N/100 mm)		D-3759
Elongation at Break:	390%		D-3759
Backing Thickness:	3.0 mils (0.08 mm)		D-3652
Total Tape Thickness (without liner):	5.1 mils (0.13 mm)		D-3652
Liner Thickness:	3.2 mils (0.08 mm)		D-3652
Temperature Use Range:	-30° to 225°F (-34° to 107°C)		

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.²/24hrs. • 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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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	Store under normal conditions of 60° to 80°F (16° to 27°C) and 40 to 60% relative humidity in the original packaging material.
Shelf Life	To obtain best performance, use this product within 18 months from date of manufacture.
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ISO 9002

This Industrial Adhesives and Tapes Division product was manufactured under a quality system registered to ISO 9001:2000 standards.



Industrial Business
Industrial Adhesives and Tapes Division
 3M Center, Building 220-3S-06
 St. Paul, MN 55144-1000
 3M Company.
 800-362-3550 • 577-369-2923 (Fax)
www.3M.com/industrial

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