



UHMW Polyethylene Tape

5421 · 5423

Technical Data

July, 2016

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 Construction	Backing	Adhesive	Color	Standard Roll Length
	UHMW-PE Film (ultra-high molecular weight polyethylene)	Rubber	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.**

		ASTM Test Method
3M tape 5421		
Adhesion to Steel:	34 oz./in. width (37 N/100 mm)	D-3330
Tensile Strength:	46 lbs/in. width (796 N/100 mm)	D-3759
Elongation at Break:	470%	D-3759
Backing Thickness:	5.0 mils (0.13 mm)	D-3652
Total Tape Thickness (without liner):	6.7 mils (0.17 mm)	D-3652
Liner Thickness:	3.5 mils (0.09 mm)	D-3652
Temperature Use Range:	-30° to 225°F (-34° to 107°C)	
3M tape 5423		
Adhesion to Steel:	36 oz./in. width (39 N/100 mm)	D-3330
Tensile Strength:	86 lbs/in. width (1500 N/100 mm)	D-3759
Elongation at Break:	530%	D-3759
Backing Thickness:	10 mils (0.25 mm)	D-3652
Total Tape Thickness (without liner):	12 mils (0.30 mm)	D-3652
Liner Thickness:	3.5 mils (0.09 mm)	D-3652
Temperature Use Range:	-30° to 225°F (-34° to 107°C)	

Features	<ul style="list-style-type: none"> • 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. • 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.
Application Ideas	<ul style="list-style-type: none"> • Noise reduction between dissimilar parts. • Reduce squeaks, rattles and other noises that occur with movement • Lining of conveyer 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	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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This Industrial Adhesives and Tapes Division product was manufactured under a quality system registered to ISO 9001:2000 standards.



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