

3M

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.			
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.			
				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.			

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.
Technical Information	The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.
Product Use	Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method or application.
Warranty, Limited Remedy, and Disclaimer	Unless an additional warranty is specifically stated on the applicable 3M product packaging or product literature, 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. If the 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.
Limitation of Liability	Except where prohibited by law, 3M will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

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

Recycled Paper

40% pre-consumer
10% post-consumer

3M is a trademark of

Printed in U.S.A.
 ©3M 2016