

3M

UHMW Polyethylene Tape

5425

Technical Data

July, 2016

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| 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. | | |
|-----------------------------|--|----------------------------------|------------------|
| | | | 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 | |
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| | <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. • 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.

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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.



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