



# UHMW Polyethylene Tape

## 5425

Technical Data

July, 2010

**Product Description** 3M™ UHMW Polyethylene Tape 5425 is a film coated with a special acrylic adhesive that is resistant to many solvents.

Product Construction	Backing	Adhesive	Liner	Color	Standard Roll Length
	Ultra-high molecular weight polyethylene	Acrylic	55# densified kraft	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
Adhesion to Steel:	30 oz./in. width (33 N/100 mm)	D-3330
Tensile Strength:	45 lbs./in. width (788 N/100 mm)	D-3759
Elongation at Break:	100%	D-3759
Backing Thickness:	3.0 mils (0.08 mm)	D-3652
Total Tape Thickness: (without liner)	5.0 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

- 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. Within its operational temperature range, UHMW polyethylene tape can provide the following advantages:
  - A. Outstanding abrasion resistance:** Will outwear many types of PTFE and other materials in sliding applications.
  - B. Low coefficient of friction:** Exceeded only by the PTFE's.
  - C. Self-lubricating:** Can often be used where lubrication is not possible because of contamination.
  - D. Sound damping:** High energy absorption capacity helps reduce noise levels in machinery and equipment.

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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.

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## Storage

Store under normal conditions of 60° to 80°F (16° to 27°C) and 40 to 60% R.H. in the original carton.

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## Shelf Life

To obtain best performance, use this product within 18 months from date of manufacture.

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## 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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## Product Use

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**ISO 9001:2000**

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2000 standards.



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