



Technical Data Sheet

3M™ UHMW Polyethylene Tape 5425



[Product Details](#)



[Regulatory Info/SDS](#)

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 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/100in²/24hr
- 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.

Technical Information Note

The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Typical Physical Properties

Attribute Name	Test Method	Value
Color		Translucent
Adhesive Type		Acrylic
Backing		UHMW-PE Film (ultra-high molecular weight polyethylene)
Backing Thickness	ASTM D3652	0.08 mm (3 mil)
Total Tape Thickness	ASTM D3652	0.13 mm (5.1 mil)
Liner Thickness		0.08 mm (3.2 mil)

Typical Performance Characteristics

Attribute Name	Test Method	Temperature	Value
180° Peel Adhesion	ASTM D3330	22 °C (72 °F)	5.3 N/cm (48 oz/in) ¹
Elongation at Break	ASTM D3759		345 %
Tensile Strength	ASTM D3759		44.4 N/cm (25 lb/in)
Long Term Temperature Resistance			107 °C (225 °F) ²
Minimum Long Term Temperature Resistance			-34 °C (-30 °F) ²

¹ 12 in/min (300 mm/min)

² Long Term (day, weeks)

Handling/Application Information

Application Examples

- 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 and Shelf Life

Store under normal conditions of 16° to 27°C (60° to 80°F) and 40 to 60% relative humidity in the original packaging, out of direct sunlight. For best performance, use this product within 18 months from date of manufacture.

Available Sizes

Attribute Name	Value
Standard Roll Length	32.9 m (36 yd)

Information

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ISO Statement

This product was manufactured under a 3M quality system registered to ISO 9001 standards.

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