Adhesive Solutions
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Technical Data Sheet

3M™ UHMW Polyethylene Tape 5423

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 5423 is a thicker version of 3M™ UHMW-PE Film Tape 5421.

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/100in^2/24hr
- 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.

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		Rubber
Backing		UHMW-PE Film (ultra-high molecular weight polyethylene)
Backing Thickness	ASTM D3652	0.25 mm (10 mil)
Total Tape Thickness	ASTM D3652	0.3 mm (12 mil)
Liner Thickness		0.09 mm (3.5 mil)

Typical Performance Characteristics

Attribute Name	Test Method	Temperature	Value
180° Peel Adhesion	ASTM D3330	23 °C (73 °F)	3.9 N/cm (36 oz/in) [1]
Elongation at Break	ASTM D3759		520 %
Tensile Strength	ASTM D3759		150 N/cm (86 lb/in)
Long Term Temperature Resistance			107 °C (225 °F) [2]
Minimum Long Term Temperature Resistance			-34 °C (-30 °F) [2]

[1] 304 mm/min (12 in/min)
[2] Long Term (day, weeks)

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Handling/Application Information

Application Examples

- Noise reduction between dissimilar parts.
- Reduce squeaks, rattles and other noises that occur with movement
- Lining of conveyer flat 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 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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