



# Technical Data Sheet

## 3M™ UHMW Polyethylene Tape 5423



[Product Details](#)

### 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<sup>2</sup>/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  | 22 °C (72 °F) | 3.9 N/cm (36 oz/in) <sup>1</sup> |
| Elongation at Break                      | ASTM D3759  |               | 520 %                            |
| Tensile Strength                         | ASTM D3759  |               | 150 N/cm (86 lb/in)              |
| Long Term Temperature Resistance         |             |               | 107 °C (225 °F) <sup>2</sup>     |
| Minimum Long Term Temperature Resistance |             |               | -34 °C (-30 °F) <sup>2</sup>     |

<sup>1</sup> 12 in/min (300 mm/min)

<sup>2</sup> Long Term (day, weeks)

## **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**

| <b>Attribute Name</b> | <b>Value</b>   |
|-----------------------|----------------|
| 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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