



Technical Data Sheet

3M™ PTFE Glass Cloth Tape 5451



[Product Details](#)



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Product Description

Premium performance 3M™ PTFE Glass Cloth Tape 5451 has a brown woven glass cloth backing impregnated with PTFE (polytetrafluoroethylene). This tape provide a slick surface on process machinery and offers an extremely low coefficient of friction which, in combination with a pressure sensitive silicone adhesive, creates a non-stick surface that performs at elevated temperatures.

Product Features

- Very low moisture absorption allows the tape to perform in many humid environments.
- Premium glass cloth reinforced backing provides greater tensile strength and resistance to tears and punctures than typical PTFE film backed tapes.
- Excellent chemical resistance enables tape to withstand challenging applications.

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 | | Brown |
| Adhesive Type | | Silicone |
| Backing | | Woven glass cloth impregnated with PTFE (polytetrafluoroethylene) |
| Backing Thickness | ASTM D3652 | 0.08 mm (3.2 mil) |
| Total Tape Thickness | ASTM D3652 | 0.14 mm (5.6 mil) |

Typical Performance Characteristics

| Attribute Name | Test Method | Temperature | Value |
|--|-------------|---------------|----------------------------------|
| 180° Peel Adhesion | ASTM D3330 | 22 °C (72 °F) | 4.1 N/cm (38 oz/in) ¹ |
| Tensile Strength | ASTM D3759 | | 176 N/cm (100 lb/in) |
| Long Term Temperature Resistance | | | 260 °C (500 °F) ² |
| Minimum Long Term Temperature Resistance | | | -73 °C (-100 °F) ² |

¹ 12 in/min (300 mm/min)

² Long Term (day, weeks)

Handling/Application Information

Application Examples

- Easy-release, low friction surface on heat sealing and packaging equipment.
- Mold release surface in composite bonding.
- Lining conveying chutes, troughs and ducts.
- Covering rollers, drums, turnbars and formers on stitchers, binders and other process machinery.
- High temperature bundling.
- Barrier for the separation of dissimilar parts.

CAUTION:When PTFE film tape is exposed to temperatures above 600°F (316°C), small quantities of hazardous vapors may be released. INHALATION OF THESE VAPORS MAY BE HARMFUL OR MAY CAUSE RESPIRATORY TRACT IRRITATION. Do not heat or expose PTFE film tape to temperatures above 600°F (316°C).

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 24 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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