



# Technical Data Sheet

## 3M™ PTFE Glass Cloth Tape 5451



[Product Details](#)



[Regulatory Info/SDS](#)

### 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	23 °C (73 °F)	4.1 N/cm (38 oz/in) <sup>1</sup>
Tensile Strength	ASTM D3759		176 N/cm (100 lb/in)
Long Term Temperature Resistance			260 °C (500 °F) <sup>2</sup>
Minimum Long Term Temperature Resistance			-73 °C (-100 °F) <sup>2</sup>

<sup>1</sup> 304 mm/min (12 in/min)

<sup>2</sup> 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**

<b>Attribute Name</b>	<b>Value</b>
Standard Roll Length	32.9 m (36 yd)

### **Information**

**Technical Information:** The technical information, guidance, and other statements contained in this document or otherwise provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license under any 3M or third party intellectual property rights is granted or implied with this information.

**Product Selection and Use:** Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (e.g., OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product and appropriate safety products, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

**Warranty, Limited Remedy, and Disclaimer:** Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

**Limitation of Liability:** Except for the limited remedy stated above, and except to the extent prohibited by law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

**Disclaimer:** 3M industrial and occupational products are intended, labeled, and packaged for sale to trained industrial and occupational customers for workplace use. Unless specifically stated otherwise on the applicable product packaging or literature, these products are not intended, labeled, or packaged for sale to or use by consumers (e.g., for home, personal, primary or secondary school, recreational/sporting, or other uses not described in the applicable product packaging or literature), and must be selected and used in compliance with applicable health and safety regulations and standards (e.g., U.S. OSHA, ANSI), as well as all product literature, user instructions, warnings, and limitations, and the user must take any action required under any recall, field action or other product use notice. Misuse of 3M industrial and occupational products may result in injury, sickness, or death. For help with product selection and use, consult your on-site safety professional, industrial hygienist, or other subject matter expert. For additional product information, visit [www.3M.com](http://www.3M.com).

### **ISO Statement**

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

3M™ Industrial Adhesives and Tapes Division  
3M Center, St. Paul, MN 55144-1000  
[3M.com/iatd](http://3M.com/iatd)

3M is a trademark of 3M Company.  
©3M 2024 (9/24)