



PTFE Glass Cloth Tape

5451 • 5453

Technical Data

October, 2016

Product Description Premium performance 3M™ PTFE Glass Cloth Tape 5451 and 5453 has a brown woven glass cloth backing impregnated with PTFE (polytetrafluoroethylene). These tapes 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 Construction	Backing	Adhesive	Color	Standard Roll Length
	Woven glass cloth impregnated with PTFE (polytetrafluoroethylene)	Silicone	Brown	36 yds. (32.9 m)

Typical Physical Properties

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

		ASTM Test Method
3M tape 5451		
Adhesion to Steel:	38 oz./in. width (41 N/100 mm)	D-3330
Tensile Strength:	100 lbs./in. width (1760 N/100 mm)	D-3759
Backing Thickness:	5.6 mils (0.14 mm)	D-3652
Total Tape Thickness:	3.2 mils (0.08 mm)	D-3652
Temperature Use Range:	-100° to 500°F (-73° to 260°C)	
3M tape 5453		
Adhesion to Steel:	55 oz./in. width (60 N/100 mm)	D-3330
Tensile Strength:	175 lbs./in. width (3065 N/100 mm)	D-3759
Backing Thickness:	6.0 mils (0.15 mm)	D-3652
Total Tape Thickness:	8.2 mils (0.21 mm)	D-3652
Temperature Use Range:	-100° to 500°F (-73° to 260°C)	

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.

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).

3M™ PTFE Glass Cloth Tape

5451 • 5453

Application Ideas

- 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.

Storage

Store under normal conditions of 60° to 80°F (16° to 27°C) and 40 to 60% R.H. in the original carton.

Shelf Life

To obtain best performance, use this product within 24 months from date of manufacture.

Technical Information

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

Product 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. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

Warranty, Limited Remedy, and Disclaimer

Unless an additional warranty is specifically stated on the applicable 3M product packaging or product literature, 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 OR FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY OR CONDITION ARISING OUT OF A COURSE OF DEALING, CUSTOM OR USAGE OF TRADE. If the 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 where prohibited by law, 3M will not be liable for any loss or damage arising from the 3M product, whether direct, indirect, special, incidental or consequential, regardless of the legal theory asserted, including warranty, contract, negligence or strict liability.

ISO 9001

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001 standards.



Industrial Adhesives and Tapes Division

3M Center, Building 225-3S-06
St. Paul, MN 55144-1000
800-362-3550 • 877-369-2923 (Fax)
www.3M.com/iatd

3M is a trademark of 3M Company.
Printed in U.S.A.
©3M 2016 (10/16)