

October, 2016

3M™ PTFE Glass Cloth Tape 5451

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.



3M™ PTFE Glass Cloth Tape 5451

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

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

Typical Performance Characteristics

Property	Values		Method	Dwell/Cure Time	Substrate	Notes
180° Peel Adhesion	4.1 N/cm	38 oz/in	ASTM D3330	Initial	Stainless Steel	12 in/min (300 mm/min)
Tensile Strength	176 N/cm	1600 oz/in	ASTM D3759			
Temperature Use Range	-73 to 260 °C	-100 to 500 °F				

Available Sizes

Property	Values	
Standard Roll Length	32.9 m	36 yd

Handling/Application Information

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.
- 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

Storage and Shelf Life

Store under normal conditions of 60° to 80°F (16° to 27°C) and 40 to 60% R.H. in the original carton.
To obtain best performance, use this product within 24 months from date of manufacture.

Trademarks

3M is a trademark of 3M Company.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/company-us/all-3m-products/~ /3M-PTFE-Glass-Cloth-Tape-5451?N=5002385+3293241741&rt=rud
Safety Data Sheet (SDS)	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=5451

Family Group

	5451	5453
Color	Brown	Brown
Total Tape Thickness (mm)	0.14	0.21
Backing Thickness (mm)	0.08	0.15
Backing	Woven glass cloth impregnated with PTFE (polytetrafluoroethylene)	Woven glass cloth impregnated with PTFE (polytetrafluoroethylene)
Adhesive	Silicone	Silicone
Tensile Strength (N/cm)	176	306.5

ISO Statement

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

Information

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