



Technical Data Sheet

3M™ PTFE Extruded Film Tape 5491



[Product Details](#)

Product Description

3M™ PTFE Extruded Film Tape 5491 offers an extremely low coefficient of friction which, in combination with a pressure sensitive silicone adhesive, creates a smooth, non-stick surface over a variety of substrates to assist in the movement of web materials in many types of roll-wrap lay flat applications.

Product Features

- Extruded PTFE film tapes lie flatter than typical skived PTFE film tapes, resists curling during unwind and provide an exceptionally smooth surface when applied.
- Non-stick PTFE film provides an exceptionally slick surface for easy clean-up.
- Thicker backing helps extend the service life, compared to thinner versions, when subjected to abrasion or wear.
- Provides excellent chemical resistance except to organic solvents. Note: The silicone adhesive will be attacked by commercial organic solvents and so are not recommended for application requiring organic resistance.
- Silicone adhesive provides clean removal from a variety of surfaces.

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		Extruded PTFE (polytetrafluoroethylene)
Backing Thickness	ASTM D3652	0.13 mm (5 mil)
Total Tape Thickness	ASTM D3652	0.17 mm (6.7 mil)

Typical Performance Characteristics

Attribute Name	Test Method	Temperature	Value
180° Peel Adhesion	ASTM D3330	23 °C (73 °F)	3.8 N/cm (35 oz/in) ¹
Elongation at Break	ASTM D3759		260 %
Tensile Strength	ASTM D3759		72.7 N/cm (42 lb/in)
Long Term Temperature Resistance			260 °C (500 °F) ²
Minimum Long Term Temperature Resistance			-54 °C (-65 °F) ²

¹ 304 mm/min (12 in/min)

² Long Term (day, weeks)

Handling/Application Information

Application Examples

- Easy-release surface by wrapping rollers, plates, belts, etc. where build-up of sticky materials and inks can occur, minimizing clean-up.
- Chemical resistant surface for sealing and masking.
- Low coefficient of friction surface on rollers, formers, etc. to facilitate web movement.
- High strength and abrasion resistance reduce friction between surfaces, minimizing rattle and machinery noise.
- Mold release for composite or metal bonding.
- Wide temperature range for performance on or near heated machinery and equipment.

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

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.

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

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