



# PTFE Extruded Film Tape

5490 • 5491

## Technical Data

March, 2014

**Product Description** 3M™ PTFE Extruded Film Tapes have a film backing with a silicone adhesive.

| Product Construction | Backing                                    | Adhesive | Color | Standard Roll Length |
|----------------------|--------------------------------------------|----------|-------|----------------------|
|                      | Extruded PTFE<br>(polytetrafluoroethylene) | Silicone | Gray  | 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™ PTFE Extruded Tape 5490

|                        |                                  |        |
|------------------------|----------------------------------|--------|
| Adhesion to Steel:     | 27 oz./in. width (29 N/100 mm)   | D-3330 |
| Tensile Strength:      | 22 lbs./in. width (385 N/100 mm) | D-3759 |
| Elongation at Break:   | 150%                             | D-3759 |
| Backing Thickness:     | 2.0 mils (0.05 mm)               | D-3652 |
| Total Tape Thickness:  | 3.7 mils (0.09 mm)               | D-3652 |
| Temperature Use Range: | -65° to 500°F (-54° to 260°C)    |        |

#### 3M™ PTFE Extruded Tape 5491

|                        |                                  |        |
|------------------------|----------------------------------|--------|
| Adhesion to Steel:     | 35 oz./in. width (38 N/100 mm)   | D-3330 |
| Tensile Strength:      | 40 lbs./in. width (700 N/100 mm) | D-3759 |
| Elongation at Break:   | 200%                             | D-3759 |
| Backing Thickness:     | 5.0 mils (0.13 mm)               | D-3652 |
| Total Tape Thickness:  | 6.7 mils (0.17 mm)               | D-3652 |
| Temperature Use Range: | -65° to 500°F (-54° to 260°C)    |        |

## Features

- Extruded, calendered film tapes that resist curling during unwind and provide an exceptionally smooth surface when applied.
- Extruded PTFE film tapes lie flatter than typical skived PTFE film tapes.
- 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 is not recommended for applications requiring organic resistance.

**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 Extruded Film Tape

5490 • 5491

---

## Application Ideas

- Easy-release surface on rollers, plates, belts, etc. where build-up of sticky materials and inks can occur.
- Low coefficient of friction surface on rollers, formers, etc. to facilitate web movement.
- Chemical resistant surface for sealing and masking.
- Wrapping rubber nip rollers on hot polyethylene extrusion machines.

---

## 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 9001:2000**

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001:2000 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



Recycled Paper  
40% pre-consumer  
10% post-consumer

3M is a trademark of 3M Company.  
Printed in U.S.A.  
©3M 2014 (3/14)