# PTFE Extruded Film Tape
# 5490·5491

**Technical Data** **October, 2016**

**Product Description**

3M™ PTFE Extruded Film Tape 5490 and 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 Construction**

| Backing | Adhesive | Color | Standard Roll Length |
|---|---|---|---|
| Extruded PTFE (polytetrafluoroethylene) | Silicone | Brown | 36 yds. (32.9 m) |

**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 5490** | | |
| Adhesion to Steel: | 27 oz./in. width (30 N/100 mm) | D-3330 |
| Tensile Strength at Break: | 17 lbs./in. width (304 N/100 mm) | D-3759 |
| Elongation at Break: | 170% | 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 tape 5491** | | |
| Adhesion to Steel: | 35 oz./in. width (38 N/100 mm) | D-3330 |
| Tensile Strength at Break: | 42 lbs./in. width (727 N/100 mm) | D-3759 |
| Elongation at Break: | 260% | 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 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.

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**Application Ideas**

- 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**

Store under normal conditions of 60° to 80°F (16° to 27°C) and 40 to 60% relative humidity in the original packaging material.

**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.

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ISO 9002

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

**Industrial Business**
**Industrial Adhesives and Tapes Division**
3M Center, Building 220-3S-06
St. Paul, MN 55144-1000
800-362-3550 · 577-369-2923 (Fax)
www.3M.com/industrial

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