

PTFE Extruded Film Tape

5490 • 5491

Technical Data

April, 1996

Product Description Extruded PTFE (polytetrafluoroethylene) film backing with a silicone adhesive.

Construction	Backing	Adhesive	Color	Standard Roll Length
	Extruded PTFE	Silicone	Gray	36 yds. (33 m)

Typical Physical Properties and Performance Characteristics

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

Tape 5490

Adhesion to Steel:	27 oz./in width (29 N/100 mm)	D-3330
Tensile Strength at Break:	22 oz./in. width (385 N/100 mm)	D-3759
Elongation at Break:	150%	D-3759
Backing Thickness:	2.0 mils (.05 mm)	D-3652
Total Tape Thickness:	3.5 mils (.09 mm)	D-3652
Temperature Use Range:	-100°F to 400°F (-73°C to 204°C)	

Tape 5491

Adhesion to Steel:	35 oz./in width (38 N/100 mm)	D-3330
Tensile Strength at Break:	40 oz./in. width (700 N/100 mm)	D-3759
Elongation at Break:	200%	D-3759
Backing Thickness:	5.0 mils (.13 mm)	D-3652
Total Tape Thickness:	6.5 mils (.17 mm)	D-3652
Temperature Use Range:	-65°F to 450°F (-54°C to 232°C)	

General Information

- Tape 5490 and Tape 5491 are extruded, calendered film tapes that provide an exceptionally smooth surface when applied and resist curling during unwind.
- Extruded PTFE film tapes lie flatter than typical skived PTFE film tapes.
- The backing of Tape 5491 helps extend the service life of the tape when subjected to abrasion or wear.
- Chemical resistance of Tape 5490 and Tape 5491 is excellent except to organic solvents. **Note:** The silicone adhesive will be attacked by commercial organic solvents and this tape is not recommended for applications requiring organic resistance.

CAUTION: When PTFE film tape is exposed to temperatures above 750°F (400°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 750°F (400°C).

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General Information (continued)

- Store in a clean, dry area at 60-80°F (15-21°C) and 40-50% relative humidity no longer than 12 months from date of receipt.
- To help prevent wrinkling or bubbling of the backing on PTFE film tapes when they are subjected to temperatures above 250°F (121°C), pre-heat the surface to at least 150°F (66°C) (preferred 180°F, 82°C) to obtain best results.

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.

Features	Advantages	Benefits
<ul style="list-style-type: none">• Extruded PTFE film	<ul style="list-style-type: none">• Low coefficient of friction• Easy release• Lays flat• High mechanical strength	<ul style="list-style-type: none">• Helps improve movement of materials• Helps minimize clean-up of viscous substances• Stays put – helps minimize rework
<ul style="list-style-type: none">• Silicone adhesive	<ul style="list-style-type: none">• High temperature performance• Long aging	<ul style="list-style-type: none">• Durable• Helps increase productivity• Helps minimize rework

For Additional Information

To request additional product information or to arrange for sales assistance, call toll free 1-800-362-3550. Address correspondence to: 3M Industrial Tape and Specialties Division, 3M Center, Building 220-7E-01, St. Paul, MN 55144-1000. Our fax number is 612-733-9175. In Canada, phone: 1-800-364-3577. In Puerto Rico, phone: 1-809-750-3000. In Mexico, phone: 5-728-2180.

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ISO 9002

This Industrial Tape and Specialties Division product was manufactured under a 3M quality system registered to ISO 9002 standards.

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