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English-EU

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Technical Data Sheet

3M™ PTFE Extruded Film Tape 5490

Product Description

3M™ PTFE Extruded Film Tape 5490 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	0.05 mm
Total Tape Thickness	ASTM D3652	0.09 mm

Typical Performance Characteristics

Attribute Name	Test Method	Temperature	Value
180° Peel Adhesion	ASTM D3330	22 °C	2.9 N/cm [1]
Elongation at Break	ASTM D3759		170 %
Tensile Strength	ASTM D3759		30.4 N/cm
Long Term Temperature Resistance			260 °C [2]
Minimum Long Term Temperature Resistance			-54 °C [2]

[1] 12 in/min (300 mm/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

Information

Precautionary Information: Refer to product label and Material Safety Data Sheet for health and safety information before using the product. For information, please contact your local 3M Office. You can click or scan QR code to see contact detail or visit www.3M.com Important Information: All statements, technical information and recommendations contained in this document are based upon tests or experience that 3M believes are reliable. However, many factors beyond 3M's control can affect the use and performance of a 3M product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. Since these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method or application. All questions of liability relating to this product are governed by the terms of the sale subject, where applicable, to the prevailing law. Values presented have been determined by standard test methods and are average values not to be used for specification purposes. Our recommendations on the use of our products are based on tests believed to be reliable but we would ask that you conduct your own tests to determine their suitability for your applications. This is because 3M cannot accept any responsibility or liability direct or consequential for loss or damage caused as a result of our recommendations.

ISO Statement

This product was manufactured under a 3M quality system registered to ISO 9001 standards.

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