



5490 "PTFE" Plastic Film Tape

Product Data Sheet

Updated : March 1996
Supersedes : October 1993

Product Description

A low friction film which is resistant to wear. The extruded film is more suitable for applications on flat surfaces due to its resistance to curl.

Physical Properties

Not for specification purposes

Adhesive Type	Silicone	
Backing	Extruded film made of DuPont's "Teflon" PTFE (Polytetrafluorethylene) film.	
Film Thickness (ASTM D-3652)	50 µm	
Total Thickness	90 µm	
Tape Colour	Blue-black	
Shelf Life	12 months from date of despatch by 3M when stored in the original carton at 21°C (70°F) & 50 % Relative Humidity	

Performance Characteristics

Not for specification purposes

Adhesion to Stainless Steel ASTM D-3330	2.9 N/10mm	
Tensile Strength ASTM D-3759	38.5 N/10mm	
Elongation at Break ASTM D-3759	150 %	
Temperature Range Maximum Minimum	204 °C -53 °C	

Additional Product Information

No. 5490 is an extruded, calendered film. This process provides an exceptionally smooth surface when applied. Resists curl on unwind and lays flat.

Chemical resistance of No. 5490 is excellent. The silicone adhesive will be attacked by commercial organic solvents and should not be used for applications requiring organic solvent resistance.

Shelf life of No. 5490 is excellent with no noticeable deterioration after normal storage of one year. Applied tape can be considered permanent in inherent limits of the backing or adhesive are not exceeded.

CAUTION

The characteristics of "Teflon" Film are such that at temperatures above 204°C, the film gives off small quantities of toxic fumes. Therefore, when using 3M Brand "Teflon" Tapes above 204°C adequate ventilation must be provided.

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Application Techniques	To prevent wrinkling or bubbling of the backing on "Teflon" film tapes when subjected to temperature above 120°C, pre-heat the surface the tape will be	applied to. Pre-heat the surface to at least 65°C, preferably 80°C, to obtain the best results.	While always ensuring surface is dry, clean and with no loose surface. Firm even pressure should always be applied.
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Applications	Easy release surface provided by wrapping rollers, plates, belts etc., where build-up of sticky materials, ink and paints normally occur.	Chemical resistant surface provided by lining hoods, bins, chutes and wrapping pipes, cables, conduit etc.
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FEATURES	ADVANTAGES	BENEFITS
Extruded "Teflon" Film.	Exceptionally smooth surface. Resists edge curl. Lays Flat.	Ease of clean-up. Stays in place. Higher productivity.
Silicone adhesive.	High temperature performance. Long ageing.	High productivity.

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"Teflon" is a trademark of DuPont.

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.

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