



# Scotch™

## Single Side Membrane Switch Spacer 7993MP

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### Product Data Sheet

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Updated : July 2000  
Supersedes : November 1994

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#### Physical Properties

Not for specification purposes

|                   |                                                                                                                       |
|-------------------|-----------------------------------------------------------------------------------------------------------------------|
| <b>Carrier</b>    | 1.0 Polyester                                                                                                         |
| <b>Adhesive</b>   | 2.0 #200 "High Performance" Acrylic                                                                                   |
| <b>Liner</b>      | 90# Bleached Kraft                                                                                                    |
| <b>Shelf Life</b> | 24 months from date of manufacture by 3M if stored at room temperature condition in cool, dry and sun protected room. |

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#### Features:

- Long term, environmentally stable adhesive to resist UV. light, chemicals, and temperatures to 300°F (149°C).
- High cohesive strength of the adhesive withstands repeated stresses of switch actuation.

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#### Applications

- Add a different thickness of adhesive to one side of a membrane switch to build a membrane switch spacer.
- Designed for use as a substrate for membrane switch circuitry.
- Hold metal domes in place.
- Protect conductive leads.

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**Initial Adhesion**  
Not for specification purposes

**Dynamic Peel - 180° Peel**  
(ASTM D-3330, PSTC3)

Stainless Steel N/10mm 3.6

**Properties and Performance**  
Not for specification purposes

|                                           |                                                                                                                                                                                                                                                                                      |
|-------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Temperature Range</b>                  | Low : -40°F (-40C)<br>High Long Term (days/weeks) : 250°F (121°C).<br>High Short Term (minutes/hours) : 300°F (149°C).                                                                                                                                                               |
| <b>Chemical Resistance</b>                | Solvent resistance is excellent when this product is properly applied to impervious materials. The adhesive resists softening through edge contact with mild acids, alkalis, oil, gasoline, Kerosene, JP-4 fuel and many other solvents.<br><br>Not recommended for total immersion. |
| <b>Moisture &amp; Humidity Resistance</b> | No adverse effect on the bond after exposure to 100% Relative Humidity at 38°C.                                                                                                                                                                                                      |
| <b>Bond Build Up</b>                      | The bond strength of Scotch #200 Hi-Performance Acrylic adhesive increases as a function of time and temperature.                                                                                                                                                                    |
| <b>U.V. Resistance</b>                    | Adhesive is very resistant to oxidation and ozone when exposed to air or sunlight (U.V.).                                                                                                                                                                                            |

**Processing**

**Die-cutting:**

Steel rule or punch press die-cuttable.

**Roll Laminating:**

Use rubber over steel roll set up with firm application pressure. Make adhesive to substrate contact at nip area only to exclude air entrapment.

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## Other Considerations

Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure develops better adhesive contact and thus improves bond strength.

To obtain adhesion, the bonding surfaces must be clean, dry, and smooth. Some typical surface cleaning solvents are isopropyl alcohol or heptane. Consult manufacturer's Material Safety Data Sheet for proper handling and storage of solvents.

Ideal tape application temperature range is 70°F (21°C) to 100°F (38°C). Initial tape application to surfaces at temperatures below 50°F (10°C) is not recommended because the adhesive becomes too firm to adhere readily. However, once properly applied, low temperature holding is generally satisfactory.

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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.



## Tapes & Adhesives Group

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