



Membrane Switch Spacer/Data Page

FOD # 0155

Scotch™ 9045MP Heavy-Linered Membrane Switch Spacers
9056MP Heavy-Linered Membrane Switch Spacers
9057MP Heavy-Linered Membrane Switch Spacers
9059MP Heavy-Linered Membrane Switch Spacers
9061MP Heavy-Linered Membrane Switch Spacers

Description

Product Number	Adhesive Type (2.0 mils)	Carrier Polyester (mil)	Adhesive Type (2.0 mils)	Liner Polycoated Bleached Kraft (each side/6.7 mils)
9045MP	#200MP	1.0	#200MP	90#/90#
9056MP	#200MP	2.0	#200MP	90#/90#
9057MP	#200MP	3.0	#200MP	90#/90#
9059MP	#200MP	5.0	#200MP	90#/90#
9061MP	#200MP	7.0	#200MP	90#/90#

Applications

- Attach graphic overlay to tactile Membrane Switch
- Separate circuits within Membrane Switch
- Attach Membrane Switch to backer panel

Features

- Die-cuttable, layflat moisture stable liner with easy removal for improved handling during processing.
- High cohesive strength to withstand internal stresses of a Membrane Switch.
- Excellent temperature, humidity and chemical resistance.

Physical Properties

(Typical values - not for specification use)

Initial Adhesion:	<u>Product</u>	<u>Surface</u>	<u>Oz./In.</u>
Dynamic Peel-90 degrees	9045MP	Stainless Steel	
Modified ASTM D-3330,	9056MP	Stainless Steel	
PSTC-3, 2 mil aluminum	9057MP	Stainless Steel	46
backing	9059MP	Stainless Steel	47
	9061MP	Stainless Steel	50

Environmental Performance

The properties defined are based on the attachment of impervious faceplate materials (such as aluminum) to a stainless steel test surface.

Bond Build up:	The bond strength of Scotch™ spacers increase as a function of time and temperature.
Chemical Resistance:	Excellent resistance to gasoline, oil, sodium chloride solution and mild acids and alkalies.
Water Resistance:	Immersion in water has no appreciable effect on the bond strength.
Shelf Life:	Scotch™ Membrane Switch Spacers can be certified to retain adhesive properties for 1 year from date of purchase if properly stored at room temperature conditions of 72 degrees F (22 degrees C) and 50% R.H.

Processing

Die Cutting:	Use sharp tooling, properly designed for the cutting of pressure sensitive adhesives and the laminating material. It is helpful to lubricate tooling with a low residue “vanishing” type of oil for improved handling.
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.

Special Considerations

For maximum bond strength, surface should be thoroughly cleaned and dried. A typical cleaning solvent is heptane or isopropyl alcohol. Consult manufacturer’s Material Safety Data Sheet for proper handling and storage of cleaning solvents and die lubricants.

Bond strength may be improved with firm application pressure and moderate heat. This will help adhesive flow out and develop better contact with bonding surface. Ideal application temperature range is 70 degrees F (21 degrees C) to 101 degrees F (38 degrees C). Initial application to surfaces below 50 degrees F (10 degrees C) is not recommended because the adhesive becomes too firm to adhere readily. However, if properly applied, low temperature holding is generally satisfactory.

3/6/90

Terms and Conditions of Sale for products sold by 3M Identification and Converter Systems Division can be found in the ICSD Price Book and in other appropriate schedules.

Technical Data: All physical properties, statements, and recommendations are either based on tests we believe to be reliable or our experience, but they are not guaranteed. 3M recommends each user determine the suitability of the products for the intended use.

Warranty and Limited Remedy: THE FOLLOWING WARRANTY IS MADE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTY OF MERCHANTABILITY, THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE AND ANY IMPLIED WARRANTY ARISING OUT OF A COURSE OF DEALING, A CUSTOM OR USAGE OF TRADE: 3M warrants its product will be free from all defects.

If a product is proved to be defective, then the exclusive remedy 3M's and seller's sole obligation shall be, at 3M's option, to replace the quantity of the product which is proved to be defective or to refund the purchase price.

Limitation of Liability: 3M and seller shall not be liable for direct, indirect, special, incidental or consequential damages based breach of warranty, breach of contract, negligence, strict liability or any other legal theory.

The foregoing Warranty and Limited Remedy and Limitation of Liability may be changed only by a written agreement signed by authorized officers of 3M and seller.

Scotch, ScotchMark, ScotchCap, and Stamark are trademarks of 3M.



**Identification and Converter
Systems Division**

3M Center, Building 220-7W-03
St. Paul, MN 55144-1000
USA
1 800 223 7427
1 800 258 7511 FAX
e-mail idconvert@mmm.com

3M Canada Inc.

PO Box 5757
London, Ontario
Canada N6A 4T1
1 800 265 1840
519 452 6090 FAX

3M Mexico, S.A. de C.V.

Apartado Postal 14-139
Mexico, D.F. 07070
Mexico
52 5 728 2289
52 5 728 2299 FAX

3M Puerto Rico, Inc.

Puerto Rico Industrial Park
PO Box 100
Carolina, PR 00986-0100
809 750 3000
809 750 3035 FAX