



# Laminating Adhesives/Data Page

FOD # 0063

## Scotch™ 9667MP Laminating Adhesive 9668MP Laminating Adhesive

### Product Construction

<u>Product</u>	<u>Adhesive</u>	<u>Liner</u>
9667MP	2.0 mil (50 microns) #200MP “Hi-Performance” Acrylic	6.5 mil (165 microns) 86# Tan Polycoated Kraft
9668MP	5.0 mil (125 microns) #200MP “Hi-Performance” Acrylic	6.5 mil (165 microns) 86# Tan Polycoated Kraft

### Features

- High-performance acrylic adhesive provides exceptional environmental resistance and enhanced bond strength.
- Superior adhesive smoothness offers improved clarity and lamination to thin plastic facestocks.
- High cohesive strength provides resistance to edge lifting and slippage.
- 2.0 mil 9667MP accommodates application to smoother surfaces.
- 5.0 mil 9668MP accommodates application to a variety of rough or textured surfaces.
- Layflat, moisture stable 86# polycoated kraft liner is ideal for die-cutting end tabs and multiple nameplates on a common carrier

### Applications

- Long-term bonding of metal and plastic nameplates and decorative trim to metal and high surface energy plastics.
- Lamination to back-printed polycarbonate or polyester graphic overlay materials.
- Ideal for multiple nameplates on a common sheet and graphic overlays with end tabs.
- Used in the assembly of membrane switches including spacer construction and graphic overlay.

## Physical Properties

(Typical values - not for specification use)

	<u>Product</u>	<u>20 Minute Dwell</u>			
		<u>Oz./In.</u>	<u>N/100 mm</u>		
ASTM D-3330 (modified)	9667MP	44	48		
90 degree peel, 12"/min. (305 mm/min.) 2 mil aluminum to stainless steel	9668MP	59	64		
	<u>Product</u>	<u>72 Hr. Dwell</u>		<u>Ultimate Bond</u>	
		<u>Oz./In.</u>	<u>N/100mm</u>	<u>Oz./In.</u>	<u>N/100mm</u>
90 degree peel, 12"/min. (305 mm/min.) 2 mil aluminum to various surfaces:					
Metal (Stainless Steel)	9667MP	82	90	113	124
	9668MP	109	119	178	194
High Surface Energy Plastic (Polycarbonate)	9667MP	48	53	–	–
	9668MP	60	65	–	–

## **Environmental Performance**

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

- Bond Build-up:** The bond strength of #200MP acrylic adhesive increases as a function of time and temperature.
- Humidity Resistance:** High humidity has a minimal effect on adhesive performance. Bond strengths are generally higher after exposure for 7 days at 90 degrees F (32 degrees C) and 90% relative humidity.
- Chemical Resistance:** When properly applied, nameplate and decorative trim parts will hold securely after exposure to numerous chemicals including gasoline, oil, Freon (TM) TF, sodium chloride solution and mild acids and alkalis.
- U.V. Resistance:** When properly applied, nameplates and decorative trim parts are not adversely affected by outdoor exposure.
- Water Resistance:** Immersion in water has no appreciable effect on the bond strength. After 100 hours in room temperature water, the bond actually shows an increase in strength.
- Temperature Cycling Resistance:** Bond strength generally increases after cycling four times through:  
4 hours at 158 degrees F (70 degrees C)  
4 hours at -20 degrees F (-29 degrees C)  
16 hours at room temperature
- Heat Resistance:** The #200MP acrylic adhesive is usable for short periods (minutes) at temperatures up to 400 degrees F (204 degrees C) and for intermittent longer periods of time (days) up to 300 degrees F (149 degrees C).
- Shelf Life:** Product retains its performance and properties for one year from date of receipt if properly stored at room temperature conditions of 72 degrees F (22 degrees C) and 50% R.H. Storage in plastic bags is recommended.

## **Processing**

- Die-Cutting:** Excellent die-cuttability. Lubricate dies with vanishing oil or similar low residue lubricants for improved processing.
- Roll Laminating:** Excellent processability. A combination of metal and rubber rollers with moderate pressure is recommended.

## **Special Considerations/Application Tips**

For maximum bond strength the surface should be thoroughly cleaned and dried. Typical cleaning solvents are heptane or isopropyl alcohol. Consult solvent manufacturer's Material Safety Data Sheet for proper handling and storage instructions.

Bond strength can also be improved with firm application pressure and moderate heat causing the adhesive to develop intimate contact with the bonding surface.

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