



Laminating Adhesive 9172MP

Product Data Sheet

Updated : July 2000
Supersedes : June 1995

Physical Properties

Not for specification purposes

Adhesive	2.0 thou (50 micron) #200MP Hi-Performance Acrylic
Liner	4.0 thou (100 micron) 94g/m ² 58# Tan Polycoated Kraft
Liner	3.0 thou (75 micron) High-Density Polyethylene
Shelf Life	24 months from date of manufacture by 3M if stored at room temperature condition in cool, dry and sun protected room.

Features:

- Clear, film liner enables inspection of backlit graphics.
- Liner strength resists breakage and provides one-piece removal.
- Superior adhesive smoothness provides improved clarity and lamination to thin plastic facestocks.
- High-performance acrylic adhesive provides exceptional environmental resistance and enhanced bond strength.
- High cohesive strength resists edge lifting and slippage.
- 50 micron 9172MP accommodates application to smoother surfaces.

Applications

- Used for lamination to backlit polycarbonate or polyester graphic overlay materials used in the automotive and electronics industries.
- Excellent adhesive for bonding metal and plastic nameplates with many die-cut openings.

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Environmental Performance
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Bond Build Up	The bond strength of 200 MP Hi-Performance 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 32°C (90°F) and 90% relative humidity.
U.V. Resistance	When properly applied, nameplates and decorative trim parts are not adversely affected by outdoor exposure.
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, mild acids and alkalis.
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 70°C (158°F) 4 hours at -29°C (-20°F) 16 hours at room temperature.
Heat Resistance	The 200 MP Hi-Performance adhesive is usable for short periods (minutes) at temperatures up to 204°C (400°F) and intermittent for longer periods of time (days) up to 149°C (300°F).

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Initial Adhesion	ASTM-D3330 (modified) 90° Peel, 305mm/min, 2 mil polyester to stainless steel. 4.8 N/10mm
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3M test 90° peel 305mm/minute 2 mil aluminium to various surfaces		
	72 hour Dwell N/10mm	Ultimate Bond N/10mm
Stainless Steel	9.0	12.4
Polycarbonate	5.3	

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.

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

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

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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.



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