



Laminating Adhesives Data Page

FOD # 0336

3M™ 9665 Laminating Adhesive

Product Construction

Adhesive: 2.0 mils (50.0 microns) #400 “Hi-Tack” Acrylic

Liner: 6.5 mils (162.5 microns) 86# Polycoated Kraft

Features

- Excellent low temperature holding
- Excellent ultra violet light resistance
- Good bond strength to most surfaces
- Long aging adhesive

Typical Applications

- Decorative trim attachment in low temperature environments
- Graphic overlay attachment in low temperature environments

Adhesion Properties

(Typical values — not for specification use).

	<u>Surface</u>	<u>Oz./In.</u>	<u>N/100mm</u>
Initial Adhesion - Dynamic Peel (90 degree) (ASTM D-3330, PSTC3) (2 mil aluminum foil backing)	Stainless Steel	26	28

	<u>Surface</u>	<u>Oz./In.</u>	<u>N/100mm</u>
ASTM D-3330, modified Dynamic Reel	Stainless	35	38
90 deg. peel, 2 mil aluminum foil backing	Aluminum	36	39
3 day room temperature dwell	Polycarbonate	40	44
	ABS	41	45
	Polypropylene	24	26
	Glass	34	37

Properties and Performance

These numbers are typical values and should not be used for writing a specification.

Chemical Resistance: Good resistance to gasoline, oil, mild acid and alkalies.

Water Resistance: Immersion in water (48 hours at room temperature) has no appreciable effect on the bond strength.

Humidity Resistance: High humidity has minimal effect on adhesive performance. Bond strengths are generally higher after exposure to 7 days to 100 deg. F/100% R.H.

U.V. Resistance: Ultraviolet light does not affect adhesive performance.

Temperature Resistance: #400 "Hi-Tack" Acrylic Adhesive has a temperature range of -60 deg. F. (-51 deg C.) to 250 deg F. (121 deg C.).

Shelf Life: Two years from date of manufacture.

Processing

Die-cutting: Excellent die-cuttability. If necessary lubricate dies with Laminoleum, produced by Metal Lubricants Company, 708-333-8900.

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.

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

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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 4TI
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

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