

# 3M™ Double Coated Tapes 9786 • 9786NP

## Product Description

3M™ Double Coated Tapes 9786 and 9786NP with 3M™ Laminating Adhesive 300MP provide high adhesion to a wide variety of materials, including plastics and foams and has a thin nonwoven carrier for dimensional stability and improved handling.

## Construction

Product Number	Adhesive Thickness	Liner Color, Type, Print	Liner Caliper	Carrier Type
3M™ Double Coated Tape 9786	5.5 mil (0.014mm)	Tan, 58# Polycoated Kraft Paper, with 3M print	4.2 mil (0.11mm)	Nonwoven
3M™ Double Coated Tape 9786NP	5.5 mil (0.014mm)	Tan, 58# Polycoated Kraft Paper, unprinted	4.2 mil (0.11mm)	Nonwoven

## Features

- Excellent adhesion to open cell foams.
- Consistent adhesive performance to many plastics.
- Polycoated liner for ease of handling.

## Application Ideas

- Foam lamination
- Gasket attachment
- Insulator attachment
- General attachment
- Nameplate attachment



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## Typical Physical Properties and Performance Characteristics

**Note:** The following technical information and data should be considered representative or typical only and should not be used for specification purposes.

Product Number	3M™ Double Coated Tapes 9786, 9786NP
90 Degree Peel Adhesion to: (ASTM D3330 - 90 degree, 72 hour RT 2 mil Al foil)	Oz/in (N/cm) [kgN/25.4 mm]
Steel	60 (6.6) [1.7]
Polycarbonate	50 (5.5) [1.4]
ABS	50 (5.5) [1.4]
180 Degree Peel Adhesion to: (ASTM D3330 - 90 degree, 72 hour RT 2 mil Al foil)	
Steel	55 (6.0) [1.6]
Polycarbonate	55 (6.0) [1.6]
ABS	45 (5.5) [1.4]
Liner Release (ASTM D3330 - 90 inch/minute RT)	g/in (N/cm) [kgN/25.4 mm]
	40 (0.15) [0.04]
Shear Strength - ASTM D3654 modified - (.5 inch <sup>2</sup> sample size)	
1000 grams at 72°F (22°C)	360 minutes
Relative High Temperature Operating Ranges:	
Long Term (days, weeks)	200°F (93°C)
Short Term (minutes, hours)	300°F (149°C)
Dielectric Properties:	
Dielectric Strength	500 volts/mil
Breakdown Voltage	1100 volts

## Available Sizes

Roll length, width, slitting tolerance, core size.

Available Lengths (Subject to minimum order requirements)

Maximum Length	
1/2" to 63/64"	180 yd. (164 m)
1" to 54"	360 yd. (329 m)
Normal Slitting Tolerance	±1/32" (0.8 mm)
Core Size	3.0" (76.2 mm)

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## Application Techniques

Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application pressure and moderate heat, from 100°F (38°C) to 130°F (54°C), will assist the adhesive in developing intimate contact with the bonding surface.

To obtain optimum adhesion, the bonding surfaces must be clean, dry and well unified. Some typical surface cleaning solvents are isopropyl alcohol or heptane.\*

Ideal tape application temperature range is 70°F to 100°F (21°C to 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.

**\*Note:** Carefully read and follow the manufacturer's precautions and directions for use when working with solvents.

These cleaning recommendations may not be compliant with the rules of certain Air Quality Management Districts in California; consult applicable rules before use.

## Application Tips

### Handling Recommendations:

- Rolls should be handled at a minimum and handled by their core and top layer, without applying a lot of finger pressure.
- Do not handle the rolls by their sides, as this can cause the sides of the adhesive to bond with fingertips.

For additional information, please refer to the Laminating Adhesives 300MP Technical Bulletin (70-0709-3905-6).

## Environmental Performance

**Humidity Resistance:** High humidity has minimal effect on adhesive performance. No significant reduction in bond strength is observed after exposure for seven days at 90°F (32°C) and 90% relative humidity.

**UV Resistance:** When properly applied, nameplates and decorative trim parts are not adversely affected by exposure to direct sunlight.

**Water Resistance:** Immersion in water has no appreciable effect on the bond strength. After 100 hours at room temperature, the high bond strength is maintained.

**Temperature Cycling Resistance:** High bond strength is maintained after cycling four times through:

4 hours at 158°F (70°C)

4 hours at -20°F (-29°C)

4 hours at 73°F (22°C)

**Chemical Resistance:** When properly applied, nameplate and decorative trim parts will hold securely after exposure to numerous chemicals including oil, mild acids and alkalis.

## Storage

It is best to use the rolls as soon as possible after receipt. Ideally, rolls should be laminated to the intended substrates as soon after receipt as possible.

Store in original cartons at 70°F (21°C) and 50% relative humidity.

When storing rolls, lay them flat in a horizontal position with release treated wafers between the rolls.

## Shelf Life

If stored under proper conditions, product retains its performance and properties for two years from date of manufacture.

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## Certification/Recognition

**MSDS:** 3M has not prepared a MSDS for this product which is not subject to the MSDS requirements of the Occupational Safety and Health Administration's Hazard Communication Standard, 29 C.F.R. 1910.1200(b)(6)(v). When used under reasonable conditions or in accordance with the 3M directions for use, the product should not present a health and safety hazard. However, use or processing of the product in a manner not in accordance with the directions for use may affect its performance and present potential health and safety hazards.

**TSCA:** This product is defined as an article under the Toxic Substances Control Act and therefore, it is exempt from inventory listing requirements.

**RoHs Complaint/REACH Compliant:** This product complies with the European Union's "Restriction of Hazardous Substances" (RoHs) initiative and with European REACH regulations 2002/95/EC and 2005/618/EC.

## For Additional Information

To request additional product information or to arrange for sales assistance, call toll free 1-800-251-8634. Address correspondence to: 3M, Electronics Markets Materials Division, 3M Center, Building 225-3S-06, St. Paul, MN 55144-1000. Our fax number is 651-778-4244 or 1-877-369-2923. In Canada, phone: 1-800-364-3577. In Puerto Rico, phone: 1-787-750-3000. In Mexico, phone: 52-70-04-00.

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