**Technical Data** 

# 3M<sup>™</sup> Double Coated Tapes 9492MP • 9495MP • 9495MPF • 9495B

### **Product Description**

 $3M^{TM}$  Double Coated Tapes with  $3M^{TM}$  Laminating Adhesive 200MP feature a thin polyester film for dimensional stability and improved handling with ease of die-cutting and laminating. The 3M adhesive 200MP provides exceptional temperature and chemical resistance.  $3M^{TM}$  Double Coated Tape 9495B has a black polyester film to provide opacity or visibility.

# Construction

Product Number	Faceside <sup>1.4</sup> Adhesive Thickness	Carrier Type/ Thickness	Backside <sup>2,</sup> Adhesive Thickness	Liner Color, Type, Print	Liner Caliper	Total Tape Thickness (w/o liner)
3M™ Double Coated Tape 9492MP	1.0 mil (0.025mm)	Clear PET <sup>3</sup> 0.5 mil (0.013mm)	1.0 mil (0.025mm)	Tan, 58#, Polycoated Kraft, "3M 200MP"	4.0 mil (0.10mm)	2.5 mil (0.06mm)
3M™ Double Coated Tape 9495MP	2.9 mil (0.074mm)	Clear PET 0.5 mil (0.013mm)	2.3 mil (0.058mm)	Tan, 58#, Polycoated Kraft, "3M 200MP"	4.0 mil (0.10mm)	5.7 mil (0.14mm)
3M™ Double Coated Tape 9495MPF	2.9 mil (0.074mm)	Clear PET 0.5 mil (0.013mm)	2.3 mil (0.058mm)	Clear, PET, No Print	2.0 mil (0.051mm)	5.7 mil (0.14mm)
3M™ Double Coated Tape 9495B	2.9 mil (0.074mm)	Black PET 0.5 mil (0.013mm)	2.3 mil (0.058mm)	Tan, 58#, Polycoated Kraft, "3M 200MP"	4.0 mil (0.010mm)	5.7 mil (0.14mm)

Note 1: Faceside adhesive is on the interior of the roll, exposed when unwound.

Note 2: Backside adhesive is on the exterior of the roll, exposed when liner is removed.

Note 3: PET (Polyester).

Note 4: The caliper listed is based on a calculation from manufacturing controlled adhesive coat weights using a density of 1.012 g/cc.

### Features

- A thin polyester carrier in the products provides dimensional stability and improved handling with ease of die-cutting and lamination compared to adhesive transfer tapes.
- 3M<sup>™</sup> Laminating Adhesive 200MP provides exceptional temperature and chemical resistance and withstands tough application environments.
- 3M<sup>™</sup> Double Coated Tape 9495MPF has a film liner for ease in rotary die-cutting and applications who demand low particle generating parts.

# **Application Ideas**

- Graphic overlays
- Nameplates
- Appliques
- Decorative Trim
- Thermal and sound damping applications in the electronics and appliance industry.
- · Gasket and lens attachment for electronic assemblies.



# 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 Tape 9492MP	3M™ Double Coated Tapes 9495MP, 9495MPF, 9495B
Adhesion to stainless steel ASTM D3330 - 90 degree	Oz/in (N/cm) [kg/25.4 mm]	Oz/in (N/cm) [kg/25.4 mm]
- 15 minute RT	45 (4.9) [1.3]	70 (7.7) [2.0]
- 72 hour RT	60 (6.6) [1.7]	80 (8.8) [2.3]
- 72 hour 158°F (70°C)	70 (7.7) [2.0]	90 (9.9) [2.6]
ASTM D3330 - 180 degree, 2 mil Al foil		
- 72 hour RT	85 (9.3) [2.4]	100 (10.9) [2.8]
Adhesion to other surfaces* ASTM D3330 - 90 degree, 2 mil Al foil, 72 hour RT		
ABS	50 (5.5) [1.4]	60 (6.6) [1.7]
Acrylic	55 (6.0) [1.6]	60 (6.6) [1.7]
Polycarbonate	35 (3.8) [1.0]	60 (6.6) [1.7]
Shear Strength - ASTM D3654 modified - (.5 inch <sup>2</sup> sample size)		
1000 grams at 72°F (22°C)	>10,000 minutes	>10,000 minutes
500 grams at 158°F (70°C)	>10,000 minutes	>10,000 minutes
Relative High Temperature Operating Ranges:		
Long Term (days, weeks)	250°F (121°C)	250°F (121°C)
Short Term (minutes, hours)	300°F (149°C)	300°F (149°C)
Dielectric Properties: 3M™ Double Coated Tapes 9495MP, 9495MPF and 9495B		
Dielectric Strength	Not Available	1373 volts/mil
Breakdown Voltage	Not Available	7800 volts

\*Not recommended for low energy plastics (polypropylene, polyethylene). For these surfaces, please refer to 3M<sup>TM</sup> Laminating Adhesive 300MP and 300LSE.

# Available Sizes

Roll length, width, slitting tolerance, core size. Available Lengths (Subject to minimum order requirements)

Maximum Length	
1/4" to 1"	144 yd. (132 m)
1" to 54"	360 yd. (329 m)
Available Widths	
Minimum	1/4" (6.35 mm)
Maximum	54" (1372 mm)
Normal Slitting Tolerance	±1/32" (0.8 mm)
Core Size	3.0" (76.2 mm)

### 3M<sup>™</sup> Double Coated Tapes with 9492MP • 9495MP • 9495MPF • 9495B

### **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 Equipment**

To apply adhesives in a wide web format, lamination equipment is required to ensure acceptable quality. To learn more about working with pressure-sensitive adhesives please refer to technical bulletin, *Lamination Techniques for Converters of Laminating Adhesives* (70-0704-1430-8).

For additional dispenser information, contact your local 3M sales representative, or the toll free 3M sales assistance number at 1-800-251-8634.

#### Adding Liners to 3M<sup>™</sup> Double Coated Tapes with 3M<sup>™</sup> Laminating Adhesive 200MP

- 1. Rotary processing, tape only, on a densified (outside of #4994) kraft liner. In this process the tape waste will stay with the 58# PCK liner, leaving adhesive die-cuts dispensable from the #4994 (densified kraft) liner.
- Rotary processing for finished parts. It is most efficient to use the polyester linered double coat (3M<sup>™</sup> Double Coated Tape 9495MPF). Current process limitations prevent the supply of the 3M<sup>™</sup> Laminating Adhesive 200MP on a DK liner.

### **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.

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# Storage

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

### Shelf Life

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

# 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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