

# 3M High Performance Double Coated Tape

## #9294B

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**Preliminary Technical Data\***

**Jun. 2008**

### Product Description

3M™ #9294B features a black(light insulation) polyester film for dimensional stability and improved handling with ease of die cutting and laminating. 3M™ High Performance Acrylic Adhesive provides high bond strength to most surfaces of especially cell phone applications, including many low surface energy plastics such as polypropylene and painted surfaces. The 3M™ High Performance Acrylic Adhesive provides exceptional temperature and chemical resistance. Specially, #9294B is developed to get the resistance to impact.

### Feature

- This tape has a moisture resistant poly coated kraft liner which can withstand high humidity conditions with minimal cockling or wrinkling.
- This tape has a film carrier which can add dimensional stability to foams and other substrates and also makes it easier to handle the tape during slitting and die-cutting.
- The bond strength of 3M™ High Performance Acrylic Adhesive increases as a function of time and temperature, and has very high initial adhesion.  
\* The Acrylic Adhesive of #9294B has the good resistance to impact.

### Application Idea

- Cell Phone Window, Decoration & other part bonding
- Low Surface Energy plastic adhesion
- Foam to powder coated surfaces

### Construction

Product	#9294B
Adhesive Type	High Performance Acrylic adhesive
Tape Thickness	0.150mm
Tape Color	Black
Carrier	0.012mm Black PET Carrier(Light Insulation)
Release Liner	Silicone treated Poly Coated Kraft(3M logo printed White)
Liner Thickness	0.130mm(+/- 10%)
Roll Size	1200mm wide x 50M

### 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.

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Product	#9294B
Peel Strength to SUS	<u>Kg/in</u>
ASTM D-3330	
Initial	
SUS	1.6
PC	1.2
RT 72hr	
SUS	2.2
PC	2.1
Dynamic Shear Strength	<u>Kg/in<sup>2</sup></u>
ASTM D-1002	
Initial	
SUS-Acryl	48
Acryl-PC	58
PC-SUS	54
RT 72hr	
SUS-Acryl	65
Acryl-PC	64
PC-SUS	64
Shear Strength	
ASTM D-3654 modified	
– (0.5 inch <sup>2</sup> ) on SUS	
1000gram at 72 (22 )	>10,000min
Relative High	
Temperature	
Operating Ranges :	
Long Term(days, weeks)	200 (93 )
Short Term(minutes,	
hours)	300 (149 )
Release Level	25 g/in
ASTM D-3330	
Shelf Life	12months from date of manufacture when stored in original cartons at room temperature & 50% RH

### Preliminary Technical Data\*

Based on the limited production. 3M #9294B Double Coated Tape is a 3M developmental product. It is currently available on limited basis. As sufficient production data is gathered, the permanent data will be issued.

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### Application Technique

- Bond strength is dependent upon the amount of adhesive to surface contact developed. Firm application pressure helps develop better adhesive contact and improve bond strength.
- To obtain optimum adhesion, the bonding surfaces must be clean, dry and well unified. Typical surface cleaning solvents are isopropyl alcohol and water (rubbing alcohol) or heptane.

**Note :** Be sure to follow manufacturer's safety precautions and directions for use when using solvents.

- 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.

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### Environmental Performance

**Humidity Resistance:** High humidity has minimal effect on adhesive performance. No significant reduction in bond strength is observed after exposure for 7 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.

**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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### For Additional Information

To request additional product information or to arrange for sales assistance, call toll free 82-2-3771-4036. Address correspondence to : 3M Tape & Adhesive Organization, 3M Korea LTD, Daehan Invest Trust BLDG 22<sup>nd</sup> Floor, Yoido Dong, Yongdeungpogu, Seoul, Korea. Our fax number is 82-2-786-7429

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### Important Notice

3M MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of application. Please remember that many factors can affect the use and performance of a 3M TAO product in a particular application. The materials to be bonded with the product, the surface preparation of those materials, the product selected for use, the conditions in which the product is used, and the time and environmental conditions in which the product is expected to perform are among the many factors that can affect the use and performance of a 3M TAO product. Given the variety of factors that can affect the use and performance of a 3M TAO product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M TAO product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

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### Limitation of Remedies and Liability

If the 3M product is provided to be defective, THE EXCLUSIVE REMEDY, AT 3M'S OPTION, SHALL BE TO REFUND THE PURCHASE PRICE OF REPAIR OR REPLACE THE DEFECTIVE 3M PRODUCT. 3M shall not otherwise be liable for loss or damages, whether direct, indirect, special, incidental, or consequential, regardless of the theory asserted, including negligence, warranty, or strict liability.

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**ISO 9002**

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This Tape & Adhesives Organization product was manufactured under a 3M quality system registered to ISO 9002 standards.

# 3M

### Industrial Adhesives & Tapes Division

3M Korea LTD, Daehan Invest Trust  
BLDG 22<sup>nd</sup>, Yoido-Dong,  
Yongdeungpo-Gu, Seoul  
Korea  
82-2-3771-4036  
www.3M.com

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