



Technical Data Sheet

3M™ Double Coated Tape 9629B



Product Details



Regulatory Info/SDS

Product Description

Finite Element Analysis (FEA) data is available for this product at: 3m.com/FEA

3M™ Double Coated Tapes with 3M™ Quick Bonding Adhesive 360 provides high bond strength to most surfaces, including many low surface energy plastics such as polypropylene and powder coated paints.

Product Features

- Excellent adhesion to difficult to bond to surfaces such as HDPE, LDPE, and PP.
- Super quick stick.
- Higher adhesion from a thinner tape.
- This tape has a film carrier which can add dimensional stability to foam and other substrates and also make it easier to handle the tape during slitting and die-cutting.

Technical Information Note

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

Typical Physical Properties

| Attribute Name | Test Method | Test Condition | Value |
|----------------------|-------------|----------------|---------------------------------|
| Adhesive Type | | | Acrylic |
| Adhesive Carrier | | | Black PET (Polyester) |
| Adhesive Thickness | | Faceside | 0.04 mm (1.75 mil) ¹ |
| Carrier Thickness | | | 0.013 mm (0.5 mil) |
| Adhesive Thickness | | Backside | 0.04 mm (1.75 mil) ² |
| Total Tape Thickness | ASTM D3652 | | 0.1 mm (4 mil) |
| Liner | | | 60# Glassine |
| Liner Thickness | | | 0.08 mm (3.2 mil) |
| Primary Liner Color | | | Natural |

¹ Faceside adhesive is on the interior of the roll, exposed when unwound and liner removed.

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

Typical Performance Characteristics

180° Peel Adhesion

Temperature: 23 °C (73 °F)

Backing: 2 mil Aluminum Foil

Test Method: ASTM D3330

| Dwell Time | Test Condition | Substrate | Value |
|------------|----------------|--------------------|----------------------------------|
| 30 s | Faceside | Polypropylene (PP) | 11 N/cm (105 oz/in) ¹ |
| 30 s | Backside | Polypropylene (PP) | 13 N/cm (121 oz/in) ¹ |
| 15 min | Faceside | Polypropylene (PP) | 12 N/cm (109 oz/in) ¹ |
| 15 min | Backside | Polypropylene (PP) | 15 N/cm (133 oz/in) ¹ |
| 72 h | Faceside | ABS | 13 N/cm (121 oz/in) ¹ |
| 72 h | Backside | ABS | 14 N/cm (126 oz/in) ¹ |
| 72 h | Faceside | Polycarbonate (PC) | 15 N/cm (133 oz/in) ¹ |

| Dwell Time | Test Condition | Substrate | Value |
|------------|----------------|--------------------|----------------------------------|
| 72 h | Backside | Polycarbonate (PC) | 16 N/cm (148 oz/in) ¹ |
| 72 h | Faceside | Polyethylene (PE) | 7 N/cm (67 oz/in) ¹ |
| 72 h | Backside | Polyethylene (PE) | 8 N/cm (73 oz/in) ¹ |
| 72 h | Faceside | Polypropylene (PP) | 16 N/cm (150 oz/in) ¹ |
| 72 h | Backside | Polypropylene (PP) | 16 N/cm (143 oz/in) ¹ |
| 72 h | Faceside | Stainless Steel | 14 N/cm (129 oz/in) ¹ |
| 72 h | Backside | Stainless Steel | 17 N/cm (156 oz/in) ¹ |

¹ 304 mm/min (12 in/min)

Temperature: 23 °C (73 °F)

Test Condition: 1000 g

| Attribute Name | Test Method | Value |
|----------------|-------------|--------------------------|
| Static Shear | ASTM D3654 | >10,000 min ¹ |

¹ 25 x 25 mm (1 in x 1 in) sample area, test terminated after 10,000 minutes

| Attribute Name | Value |
|-----------------------------------|------------------------------|
| Short Term Temperature Resistance | 177 °C (350 °F) ¹ |
| Long Term Temperature Resistance | 93 °C (200 °F) ² |

¹ Short Term (minutes, hour)

² Long Term (day, weeks)

Typical Environmental Characteristics

Environmental Resistance

Humidity Resistance:High humidity has minimal effect on adhesive performance. No significant reduction in bond strength is observed after exposure for 72hrs at 150°F (65°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 six times through:

8 hours at -4°F (-20°C)

8 hours at 150°F (65°C) /90% RH

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

Handling/Application Information

Application Examples

- Foam to powder coated painted surfaces.
- Low surface energy plastic adhesion.

Application Techniques

Bond strength is dependent upon the amount of adhesive-to-surface contact developed. Firm application 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. Typical surface cleaning solvents are methyl ethyl ketone for metals or isopropyl alcohol for plastics.* 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.

*When using solvents, extinguish all ignition sources, including pilot lights, and follow the manufacturers precautions and directions for use. 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, 3M™ 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 1-800-362-3550.

Storage and Shelf Life

Store under normal conditions of 16° to 27°C (60° to 80°F) and 40 to 60% relative humidity in the original packaging, out of direct sunlight. For best performance, use this product within 24 months from date of manufacture.

Automotive Disclaimer

Select Automotive Applications:

This product is an industrial product and has not been designed or tested for use in certain automotive applications, such as automotive electric powertrain battery or high voltage applications, which may require the product to be manufactured in a IATF certified facility, meet a Ppk of 1.33 for all properties, undergo an automotive production part approval process (PPAP), or fully adhere to automotive design or quality system requirements (e.g., IATF 16949 or VDA 6.3). Customer assumes all responsibility and risk if customer chooses to use this product in these applications.

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ISO Statement

This product was manufactured under a 3M quality system registered to ISO 9001 standards.

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