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Technical Data Sheet

3M™ Double Coated Tape 9628FL

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.
• Excellent solvent resistance.
• 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			Clear PET (Polyester)
Adhesive Thickness		Faceside	0.019 mm (0.75 mil) [1]
Carrier Thickness			0.013 mm (0.5 mil)
Adhesive Thickness		Backside	0.019 mm (0.75 mil) [2]
Total Tape Thickness	ASTM D3652		0.05 mm (2 mil)
Liner			Polyester
Liner Thickness			0.05 mm (2 mil)
Primary Liner Color			Clear

[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)	9 N/cm (78 oz/in) [1]
30 s	Backside	Polypropylene (PP)	9 N/cm (86 oz/in) [1]
15 min	Faceside	Polypropylene (PP)	9 N/cm (78 oz/in) [1]
15 min	Backside	Polypropylene (PP)	10 N/cm (90 oz/in) [1]
72 h	Faceside	ABS	11 N/cm (103 oz/in) [1]
72 h	Backside	ABS	12 N/cm (112 oz/in) [1]

Dwell Time	Test Condition	Substrate	Value
72 h	Faceside	Polycarbonate (PC)	11 N/cm (105 oz/in) [1]
72 h	Backside	Polycarbonate (PC)	11 N/cm (111 oz/in) [1]
72 h	Faceside	Polyethylene (PE)	7 N/cm (63 oz/in) [1]
72 h	Backside	Polyethylene (PE)	7 N/cm (66 oz/in) [1]
72 h	Faceside	Polypropylene (PP)	12 N/cm (109 oz/in) [1]
72 h	Backside	Polypropylene (PP)	11 N/cm (104 oz/in) [1]
72 h	Faceside	Stainless Steel	11 N/cm (101 oz/in) [1]
72 h	Backside	Stainless Steel	12 N/cm (106 oz/in) [1]

[1] 304 mm/min (12 in/min)

Static Shear

Test Condition: 1000 g
Test Method: ASTM D3654

Temperature	Value
23 °C (73 °F)	>10,000 min [1]
70 °C (158 °F)	>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.

Information

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ISO Statement

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

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