Double Coated Tape with Quick Bonding Adhesive 360

9628B • 9628FL • 9629PC • 9629B • 9629FL

Technical Data **September, 2009**

Product Description

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.

Construction

Product Number	Faceside[1] Adhesive Type/ Thickness	Carrier Type/ Thickness	Backside[2] Adhesive Type/ Thickness	Liner Color, Type, Print	Liner Caliper[3]	Total Tape Thickness (w/o liner)
3M™ Double Coated Tape 9628B	0.00075" (0.019 mm)	0.0005" (0.013 mm) Black PET	0.00075" (0.019 mm)	Natural, 60# Glassine	0.0032" (0.08 mm)	0.002" (0.05 mm)
3M™ Double Coated Tape 9628FL	0.00075" (0.019 mm)	0.0005" (0.013 mm) Clear PET	0.00075" (0.019 mm)	Clear, Polyester	0.002" (0.05 mm)	0.002" (0.05 mm)
3M™ Double Coated Tape 9629PC	0.00175" (0.04 mm)	0.0005" (0.013 mm) Clear PET	0.00175" (0.04 mm)	Tan, 58# Polycoated	0.0042" (0.11 mm)	0.004" (0.10 mm)
3M™ Double Coated Tape 9629B	0.00175" (0.04 mm)	0.0005" (0.013 mm) Black PET	0.00175" (0.04 mm)	Natural, 60# Glassine	0.0032" (0.08 mm)	0.004" (0.10 mm)
3M™ Double Coated Tape 9629FL	0.00175" (0.04 mm)	0.0005" (0.013 mm) Clear PET	0.00175" (0.04 mm)	Clear, Polyester	0.002" (0.05 mm)	0.004" (0.10 mm)

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

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

Note 3: The caliper listed is based on a calculation from manufacturing controlled adhesive coat weights using a density of 1.071 g/cc.

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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	**2.0 mil (0.05 mm) 3M™ Double Coated Tape 9628B • 9628FL**	**4.0 mil (0.10 mm) 3M™ Double Coated Tape 9629PC • 9629B • 9629FL**
Adhesion to Polypropylene ASTM D3330 – 180 degree, 2 mil al foil	Oz/in (N/25 mm) Faceside / Backside	Oz/in (N/25 mm) Faceside / Backside
- 30 seconds RT	60 (17) / 60 (17)	100 (28) / 100 (28)
- 15 minutes RT	65 (18) / 65 (18)	120 (34) / 120 (34)
- 72 hours RT	90 (25) / 90 (25)	150 (42) / 150 (42)
Adhesion to other surfaces ASTM D3330 – 180 degree, 2 mil al foil, 72 hour RT	Oz/in (N/25 mm) Faceside / Backside	Oz/in (N/25 mm) Faceside / Backside
ABS	90 (25) / 90 (25)	160 (45) / 150 (42)
Polycarbonate	115 (32) / 115 (32)	170 (48) / 160 (45)
Stainless Steel	100 (28) / 100 (28)	170 (48) / 160 (45)
LDPE	50 (14) / 50 (14)	65 (18) / 65 (18)
HDPE	60 (17) / 60 (17)	75 (21) / 65 (18)
Shear Strength - ASTM D3654 Modified – (.5 inch^2 sample size)		
1000 grams at 72°F (22°C)	>10,000 minutes	>10,000 minutes
500 grams at 158°F (70°F)	>10,000 minutes	>10,000 minutes
Relative High Temperature Operating Ranges:		
Long Term (days, weeks)	200°F (93°C)	200°F (93°C)
Short Term (minutes, hours)	350°F (177°C)	350°F (177°C)
Relative Solvent Resistance:	Very Good	Very Good

Available Sizes

Roll length, width, slitting tolerance, core size.

Product	**3M™ Double Coated Tape**		
	9628B • 9628FL	**9629PC • 9629B**	**9629FL**
Maximum Length in.:			
1/2" to 1/2"	72 yds. (66 m)	72 yds. (66 m)	72 yds. (66 m)
1/2" to 1"	360 yds. (329 m)	252 yds. (230 m)	360 yds. (329 m)
1" to 6"	540 yds. (494 m)	540 yds. (494 m)	540 yds. (494 m)
6" to 27"	900 yds. (823 m)	720 yds. (658 m)	900 yds. (823 m)
27" to 54"	540 yds. (494 m)	540 yds. (494 m)	540 yds. (494 m)
Normal Slitting Tolerance	± 1/32 in. (0.08 mm)		
Core Size (ID)	3.0 in. (76.2 mm)		
Minimum length	72 yds. (66 m).		

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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.
- High temperature performance.
- 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.

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 accelerate the adhesion process, additional heat, up to 130°F (54°C), may be used.

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.

*****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.

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:

8 hours at 194°F (90°C)
16 hours at -40°F (-40°C)
8 hours at 100.4°F (38°C/100% RH)
16 hours at -40°F (-40°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.

Application Ideas

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

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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

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.

Technical Information

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

Product Use

Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method of application.

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ISO 9001:2000

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