September, 2002

3M™ Adhesive Transfer Tape F9752PC

Product Description

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

3M™ Adhesive Transfer Tape F-9752PC with 3M™ Adhesive 420 is a high performance adhesive system that offers the ability to make adhesive bonds at temperatures as low as 32°F (0°C). This product utilizes a 58 lb. polycoated liner for moisture stability.

Product Features

Adhesive 420 is a medium firm acrylic pressure-sensitive adhesive system. It features high adhesion to a variety of surfaces, excellent shear holding power, high temperature resistance and excellent UV resistance.

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

Property	Values	
Color	Clear	
Total Tape Thickness without liner	0.05 mm	2 mil
Adhesive Type	420	
Adhesive Carrier	None	
Liner	Moisture Resistant Paper	
Liner Thickness	0.1 mm	4 mil
Liner Color	Tan	

Typical Performance Characteristics

Property	Values		Method	Substrate
Peel Adhesion	4.3 N/cm	40 oz/in	ASTM D3330	Stainless Steel
Solvent Resistance	Very Good			
UV Resistance	Excellent			

Relative High Temperature Operating Ranges		Test Condition
232 °C	450 °F	Short Term (minutes, hours)
149 °C	300 °F	Long Term (days, weeks)

Property: Relative High Temperature Operating Ranges

Static Shear	Test Condition
>10,000 min	1000 g @ Room Temperature
>10,000 min	500 g @ 70°C (158°F)
>10,000 min	400 g @ 93°C (200°F)
>10,000 min	300 g @ 121°C (250°F)
>10,000 min	300 g @ 149°C (300°F)
>10,000 min	300 g @ 177°C (350°F)

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Typical Performance Characteristics (continued)

Static Shear	Test Condition
>10,000 min	200 g @ 232°C (450°F)

Property: Static Shear
Method: ASTM D3654
Dwell/Cure Time: 72 hr
Substrate: Stainless Steel
Backing: Aluminum Foil
notes: 1 × 1 in Area Contact

180° Peel Adhesion		Test Condition	Substrate	Dwell/Cure Time	Dwell Time Units	Temp C	Temp F	Environmental Condition	Notes
4.3 N/cm	40 oz/in	Room Temperature	Stainless Steel						
4.8 N/cm	45 oz/in	Room Temperature	Painted Metal						
3.8 N/cm	35 oz/in	Room Temperature	Glass						
5.4 N/cm	50 oz/in	Room Temperature	Polycarbonate (PC)						
5.4 N/cm	50 oz/in	Room Temperature	Acrylic (PMMA)						
4.8 N/cm	45 oz/in	Room Temperature	Epoxy						
4.8 N/cm	45 oz/in	Room Temperature	ABS						
2.7 N/cm		Room Temperature	Polypropylene (PP)						
25 oz/in			Polypropylene (PP)	72	hr	22C	72F	52%RH	12 in/min (300 mm/min)
1.1 N/cm	10 oz/in	Room Temperature	Low Density Polyethylene (LDPE)						
1.6 N/cm	15 oz/in	Room Temperature	High Density Polyethylene (HDPE)						

Property: 180° Peel Adhesion
Method: ASTM D3330

Available Sizes

Property	Values	
Note	Subject to Minimum Order Requirements	
Standard Length	54.9 m	60 yd

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Available Sizes (continued)

Property	Values	
Minimum Available Width	1/2 in	
Maximum Available Width	54 in	
Normal Slitting Tolerance	±0.8 mm	±1/32 in
Core Size (ID)	76.2 mm	3 in

Maximum Length		Width
165 m	180 yd	1/2 in to 1 in widths
329 m	360 yd	1 in to maximum

Property: Maximum Length

Handling/Application Information

Application Ideas

• These tapes are ideal for joining a variety of similar and dissimilar materials where high bond strength and high temperature performance are required and are also ideal for many applications where excellent UV resistance is required.
• 2 mil thick tapes can generally be used for joining materials that are relatively smooth, thin and have low residual stress. For materials with a rough or textured surface, the thicker adhesive film of the 5 mil tapes would be more appropriate for evaluation.

Application Techniques

• 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 the manufacturer's 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 for most pressure sensitive adhesives because the adhesive becomes too firm to adhere readily. However, once properly applied, low temperature holding is generally satisfactory. 3M™ Adhesive Transfer Tapes F-9752PC and F-9755PC can be bonded at temperatures as low as 32°F (0°C).
• Ultimate bond strength can be accelerated by exposure of the bond to elevated temperatures, such as 150°F (66°C) for about one hour.

Application Equipment

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

Product retains its performance and properties for 24 months from date of manufacture when stored in original cartons at 70°F (21°C) and 50% relative humidity.

References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/company-us/all-3m-products/~/3M-Adhesive-Transfer-Tape-F9752PC?N=5002385+3293242635&rt=rud
Safety Data Sheet (SDS)	https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=F9752PC

Family Group

	F9752PC	F9755PC
Relative High Temperature Operating Ranges (°C) Test Condition: Short Term (minutes, hours)	232	232
Relative High Temperature Operating Ranges (°C) Test Condition: Long Term (days, weeks)	149	149
Color	Clear	Clear
Total Tape Thickness without liner (mm)	0.05	0.13
Adhesive Type	420	420
Adhesive Carrier	None	None
Liner	Moisture Resistant Paper	Moisture Resistant Paper
Liner Thickness (mm)	0.1	0.1
Liner Color	Tan	Tan

ISO Statement

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001 standards.

For Additional Information

To request additional product information or to arrange for sales assistance, call toll free 1-800-362-3550 or visit www.3M.com/adhesives. Address correspondence to: 3M Engineered Adhesives Division, 3M Center, Building 220-7E-01, St. Paul, MN 55144-1000. Our fax number is 651-733-9175. In Canada, phone: 1-800-364-3577. In Puerto Rico, phone: 1-787-750-3000. In Mexico, phone: 52-70-04-00.

Recognition/Certification

MSDS
3M has not prepared a MSDS for these products which are 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 products should not present a health and safety hazard. However, use or processing of the products in a manner not in accordance with the directions for use may affect their performance and present potential health and safety hazards.
TSCA
These products are defined as articles under the Toxic Substances Control Act and therefore, are exempt from inventory listing requirements.

Information

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