

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

Typical Performance Characteristics

180° Peel Adhesion		Substrate	Backing	Temp C	Temp F	Environmental Condition
4.3 N/cm	40 oz/in	Stainless Steel	2 mil Aluminum Foil			
4.8 N/cm	45 oz/in	Painted Metal		22C	72F	52%RH
5.4 N/cm	50 oz/in	Polycarbonate (PC)		22C	72F	52%RH
5.4 N/cm	50 oz/in	Acrylic (PMMA)		22C	72F	52%RH
4.8 N/cm	45 oz/in	Epoxy		22C	72F	52%RH
4.8 N/cm	45 oz/in	ABS		22C	72F	52%RH
2.7 N/cm	25 oz/in	Polypropylene (PP)		22C	72F	52%RH
3.8 N/cm	35 oz/in	Glass		22C	72F	52%RH
1.6 N/cm	15 oz/in	High Density Polyethylene (HDPE)		22C	72F	52%RH
1.1 N/cm	10 oz/in	Low Density Polyethylene (LDPE)		22C	72F	52%RH
4.3 N/cm	40 oz/in	Stainless Steel		22C	72F	52%RH

Property: 180° Peel Adhesion
 Method: ASTM D3330
 Dwell/Cure Time: 72
 Dwell Time Units: hr
 notes: 12 in/min (300 mm/min)

Typical Performance Characteristics (continued)

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)
>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

Property	Values
Solvent Resistance	Very Good
UV Resistance	Excellent

Available Sizes

Property	Values	Attribute Modifier
Note	Subject to Minimum Order Requirements	
Standard Roll Length	54.9 m	60 yd
Minimum Available Width	1/2 in	
Maximum Available Width	54 in	
Normal Slitting Tolerance	±0.8 mm	±1/32 in
Core Size	76.2 mm	3 in ID

Available Sizes (continued)

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
Liner Color Attribute Modifier: Primary	Tan	Tan
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

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

Technical Information: The technical information, guidance, and other statements contained in this document or otherwise provided by 3M are based upon records, tests, or experience that 3M believes to be reliable, but the accuracy, completeness, and representative nature of such information is not guaranteed. Such information is intended for people with knowledge and technical skills sufficient to assess and apply their own informed judgment to the information. No license under any 3M or third party intellectual property rights is granted or implied with this information.

Product Selection and 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. As a result, customer is solely responsible for evaluating the product and determining whether it is appropriate and suitable for customer's application, including conducting a workplace hazard assessment and reviewing all applicable regulations and standards (e.g., OSHA, ANSI, etc.). Failure to properly evaluate, select, and use a 3M product and appropriate safety products, or to meet all applicable safety regulations, may result in injury, sickness, death, and/or harm to property.

Warranty, Limited Remedy, and Disclaimer: Unless a different warranty is specifically stated on the applicable 3M product packaging or product literature (in which case such warranty governs), 3M warrants that each 3M product meets the applicable 3M product specification at the time 3M ships the product. 3M MAKES NO OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OR CONDITION OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR ARISING OUT OF A COURSE OF DEALING, CUSTOM, OR USAGE OF TRADE. If a 3M product does not conform to this warranty, then the sole and exclusive remedy is, at 3M's option, replacement of the 3M product or refund of the purchase price.

Limitation of Liability: Except for the limited remedy stated above, and except to the extent prohibited by law, 3M will not be liable for any loss or damage arising from or related to the 3M product, whether direct, indirect, special, incidental, or consequential (including, but not limited to, lost profits or business opportunity), regardless of the legal or equitable theory asserted, including, but not limited to, warranty, contract, negligence, or strict liability.

