



High Performance Adhesive Transfer Tapes

9482PC • 9485PC • 9675 • F-9752PC • F-9755PC

Technical Data

October, 1997

Product Description	9482PC	0.002 in. (0.05 mm) thick Adhesive Transfer Tape
	9485PC	0.005 in. (0.13 mm) thick Adhesive Transfer Tape
	9675	0.005 in. (0.13 mm) thick Adhesive Transfer Tape
	F-9752PC	0.002 in. (0.05 mm) thick Adhesive Transfer Tape
	F-9755PC	0.005 in. (0.13 mm) thick Adhesive Transfer Tape

Tapes **9482PC** and **9485PC** utilize the A-25 high performance adhesive system with fiber reinforcement. Fiber reinforcement is important for roll stability in narrow widths. These products utilize a 62 lb. polycoated liner for moisture stability.

Tape **9675** – this tape utilizes a 86 lb. polycoated layflat liner.

Tapes **F-9752PC** and **F-9755PC** utilize the A-35 high performance adhesive system. This offers the ability to make adhesive bonds at temperatures as low as 32°F (0°C). These products utilize a 58 lb. polycoated liner for moisture stability.

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Construction

Tapes	9482PC	9485PC	9675	F-9752PC	F-9755PC
Adhesive Type:*	A-25	A-25	A-25	A-35	A-35
Adhesive Carrier:	None	None	None	None	None
Release Liner:	Moisture Resistant Tan Paper	Moisture Resistant Tan Paper	Moisture Resistant Tan Paper	Moisture Resistant Tan Paper	Moisture Resistant Tan Paper
Approximate Thickness:					
Release Liner	0.004 in. (0.10 mm)	0.004 in. (0.10 mm)	0.004 in. (0.10 mm)	0.004 in. (0.10 mm)	0.004 in. (0.10 mm)
Tape Only	0.002 in. (0.05 mm)	0.005 in. (0.135 mm)	0.005 in. (0.135 mm)	0.002 in. (0.05 mm)	0.005 in. (0.13 mm)
Tape Color:	Clear	Clear	Clear	Clear	Clear

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.

Adhesion to Steel: (ASTM D-3330)	70 oz./in. (76 N/100 mm)	150 oz./in. (163 N/100 mm)	150 oz./in. (163 N/100 mm)	40 oz./in. (43 N/100 mm)	55 oz./in. (60 N/100 mm)
Relative High Temperature Operating Ranges:					
Long Term (Days, Weeks):	300°F (149°C)	300°F (149°C)	300°F (149°C)	300°F (149°C)	300°F (149°C)
Short Term (Minutes, Hours):	450°F (232°C)	450°F (232°C)	450°F (232°C)	450°F (232°C)	450°F (232°C)
Relative Solvent Resistance:	Very Good	Very Good	Very Good	Very Good	Very Good
U.V. Resistance:	Good	Good	Good	Excellent	Excellent
Shelf Life of Tape in Roll Form:	24 months	24 months	24 months	24 months	24 months

from date of manufacture when stored in original cartons at 70°F (21°C) and 50% relative humidity.

*A-25 is a firm acrylic pressure-sensitive adhesive system. It features very high adhesion to a variety of surfaces, excellent shear holding power and high temperature resistance.

A-35 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.

Available Sizes

Tapes	9675 9482PC (9485PC)	F-9752PC	F-9755PC
Core Size (ID):	3.0 in. (76.2 mm)	3.0 in. (76.2 mm)	3.0 in. (76.2 mm)
Available Lengths (Subject to Minimum Order Requirements)			
Standard:	60 yds. (54.9 m)	60 yds. (54.9 m)	60 yds. (54.9 m)
Maximum Lengths at Available Widths:			
1/8 in. to 3/8 in.	60 yds. (54.9 m)		
3/8 in. to 1/2 in.	180 yds. (165 m)		
1/2 in. to 1 in.	360 yds. (329 m)	180 yds. (165 m)	180 yds. (165 m)
1 in. to Max.	360 yds. (329 m)	360 yds. (329 m)	360 yds. (329 m)
Roll Width:			
Minimum:	1/8 in.	1/2 in.	1/2 in.
Maximum:	48 in.	54 in.	54 in.
Normal Slitting Tolerance:	± 1/32 in. (0.8 mm)	± 1/32 in. (0.8 mm)	± 1/32 in. (0.8 mm)

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Typical Adhesion Properties

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

Peel Strength:

Peel Adhesion (ASTM D3330)

(180° Peel, Room Temperature Conditions)

Tapes	9482PC		9485PC		9675		F-9752PC		F-9755PC	
	72 Hr Dwell		72 Hr Dwell		72 Hr Dwell		72 Hr Dwell		72 Hr Dwell	
Surface	oz./in	(N/100 mm)	oz./in	(N/100 mm)	oz./in	(N/100 mm)	oz./in	(N/100 mm)	oz./in	(N/100 mm)
Stainless Steel	70	(76)	150	(164)	150	(164)	40	(43)	70	(75)
Aluminum	50	(55)	95	(104)	95	(104)				
Painted Metal	60	(65)	145	(158)	45	(158)	45	(48)	63	(68)
Glass	65	(71)	145	(158)	145	(158)	35	(38)	70	(75)
Polycarbonate	65	(71)	145	(158)	145	(158)	50	(54)	74	(65)
Acrylic	60	(65)	125	(136)	125	(136)	50	(54)	74	(65)
Epoxy	65	(71)	120	(131)	120	(131)	45	(48)	77	(83)
ABS	50	(55)	85	(93)	85	(93)	45	(48)	80	(86)
Rigid PVC	50	(55)	90	(98)	90	(98)				
Polypropylene	45	(49)	60	(65)	60	(65)	25	(27)	40	(43)
L.D. Polyethylene	35	(38)	40	(44)	40	(44)	10	(11)	15	(16)
H.D. Polyethylene	30	(33)	35	(38)	35	(38)	15	(16)	25	(27)

Shear Strength:

Static Shear Adhesion (ASTM D3654)

(1" x 1" Area Contact – Aluminum to a Stainless Steel – 72 Hr. dwell)

Temperature		Load	Tapes 9482PC, 9485PC, 9675, F-9752PC, F-9755PC	
°F	°C	Grams	Minutes to Failure	
72	22	1,000		
158	70	500		
200	93	400	No Failures – Tests	
250	121	300	Discontinued After	
300	149	300	10,000 Min.	
350	177	300		
450	232	200		

UL 746C Listings - File MH 17478

Category QOQW2 Category - Polymeric Adhesive Systems, Electrical Equipment

High Performance Adhesive Transfer Tapes 9482PC, 9485PC	Aluminum, Stainless Steel, Galvanized Steel, Enameled Steel, Polycarbonate, Glass/Epoxy, Ceramic, PBT	90°C
	ABS, unplasticized PVC	75°C

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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. 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 Ideas

- These tapes are ideal for joining a variety of similar and dissimilar materials where high bond strength and high temperature performance are required. Tapes F-9752PC and F-9755PC 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.

For Additional Information

To request additional product information or to arrange for sales assistance, call toll free 1-800-362-3550. Address correspondence to: 3M Industrial Tape and Specialties Division, 3M Center, Building 220-7E-01, St. Paul, MN 55144-1000. Our fax number is 612-733-9175. In Canada, phone: 1-800-364-3577. In Puerto Rico, phone: 1-809-750-3000. In Mexico, phone: 5-728-2180.

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ISO 9002

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Industrial Tape and Specialties Division

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