## 3M<sup>™</sup> Adhesive Transfer Tape 9485PC



Last Revision Date: September, 2002

### **Product Description**

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

This 3M™ Adhesive Transfer Tape with 3M™ Adhesive 350 is a modified acrylic adhesive ideal for very high-bond strength to many surfaces. It has excellent chemical resistance and bold strength even at elevated temperatures. This tape is offered with a fiber reinforced adhesive which is important for roll stability in narrow widths. Tapes using adhesive 350 are designed for temperature exposure to 450°F (232°C) for short periods of time and up to 300°F (149°C) over long time frames. This adhesive is a good choice for applications which require adhesion to Low Surface Energy plastics, powder coatings and oily metals.

### General Information

- Excellent bond to metal and high surface energy plastics.
- Outstanding temperature and chemical resistance.
- Two adhesive thicknesses: 2 mil for thin profile labels and 5 mil for rougher surfaces.
- Available on various liners for specialized processing:
- 55# Densified Kraft for rotary die-cutting
- 62# Polycoated Kraft for steel rule die-cutting
- 83# Polycoated Kraft for lay flat applications
- 78# Extensible Kraft for conformable applications

#### Technical Information Note

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

0.127 mm

# Typical Physical Properties

Total Tape Thickness

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Property	Values	Additional Information
Adhesive Type	Acrylic	
Liner	62# Polycoated Kraft	
Liner Thickness	0.11 mm	
Total Tape Thickness	5 mil (0.127 mm)	View ^
Test Method: ASTM D3652		

View ^

Test Method: ASTM D3652

Liner Print	None
Liner Thickness	4.2 mil
Dispenser Selection	For assistance in helping you determine the best dispenser for your application, contact your local 3M sales representative, or the toll free 3M sales assistance number at 1-800-362-3550.

## Typical Performance Characteristics

Property	Values	Additional Information
Short Term Temperature Resistance	450 °F (232 °C)	View ^
Test Condition: Short Term (minutes, hour)		
Short Term Temperature Resistance	232 °C	View ^
Test Condition: Short Term (minutes, hour)		
Long Term Temperature Resistance	121 °C	View ^
Test Condition: Long Term (day, weeks)		
Minimum Long Term Temperature Resistance	-40 °C	View ^
Test Condition: Long Term (day, weeks)		
Long Term Temperature Resistance	250 °F	View ^
Test Condition: Long Term (day, weeks)		
Minimum Long Term Temperature Resistance	-40 °F	View ^
Test Condition: Long Term (day, weeks)		
Static Shear	10000 min	View ^
Test Condition: 1000 g @ Room Temperature		

Notes: 1in x 1in size; test terminated after 10,000 minutes

Static Shear 10000 min View ^

Test Condition: 500 g @ 70°C (158°F)

Notes: 1in x 1in size; test terminated after 10,000 minutes

Environmental Condition: 50%RH

Substrate: Polycarbonate (PC)

View ^ Static Shear 10000 min Test Condition: 400 g @ 93°C (200°F) Notes: 1in x 1in size; test terminated after 10,000 minutes View ^ Static Shear 10000 min Test Condition: 300 g @ 121°C (250°F) Notes: 1in x 1in size; test terminated after 10,000 minutes View ^ Static Shear 10000 min Test Condition: 300 g @ 149°C (300°F) Notes: 1in x 1in size; test terminated after 10,000 minutes View ^ Static Shear 10000 min Test Condition: 300 g @ 177°C (350°F) Notes: 1in x 1in size; test terminated after 10,000 minutes View ^ Static Shear 10000 min Test Condition: 200 g load @ 232°C (450°F) Notes: 1in x 1in size; test terminated after 10,000 minutes View ^ 180° Peel Adhesion 15.8 N/cm (145 oz/in) Test Method: ASTM D3330 Dwell/Cure Time: 72 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Painted Metal Notes: 12 in/min (300 mm/min) View ^ 180° Peel Adhesion 145 oz/in Test Method: ASTM D3330 Dwell/Cure Time: 72 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Painted Metal Notes: 12 in/min (300 mm/min) 180° Peel Adhesion View ^ 15.8 N/cm (145 oz/in) Test Method: ASTM D3330 Dwell/Cure Time: 72 Dwell Time Units: hr Temp C: 23C Temp F: 72F

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion	145 oz/in	View ^
Test Method: ASTM D3330		
D 11/O T' 70		
Dwell/Cure Time: 72 Dwell Time Units: hr		
Temp C: 23C		
Temp F: 72F		
Environmental Condition: 50%RH		
Substrate: Polycarbonate (PC)		
Notes: 12 in/min (300 mm/min)		
180° Peel Adhesion	13.6 N/cm (125 oz/in)	View ^
Test Method: ASTM D3330		
Dwell/Cure Time: 72		
Dwell Time Units: hr		
Temp C: 23C		
Temp F: 72F Environmental Condition: 50%RH		
Substrate: Acrylic (PMMA)		
Notes: 12 in/min (300 mm/min)		
4000 Deed Adless's a		
180° Peel Adhesion	125 oz/in	View ^
Test Method: ASTM D3330		
Dwell/Cure Time: 72		
Dwell Time Units: hr		
Temp C: 23C		
Temp F: 72F Environmental Condition: 50%RH		
Substrate: Acrylic (PMMA)		
Notes: 12 in/min (300 mm/min)		
180° Peel Adhesion	13.1 N/cm (120 oz/in)	View ^
Test Method: ASTM D3330		
Dwell/Cure Time: 72		
Dwell Time Units: hr Temp C: 23C		
Temp F: 72F		
Environmental Condition: 50%RH		
Substrate: Epoxy		
Notes: 12 in/min (300 mm/min)		
180° Peel Adhesion	120 oz/in	View ^
Test Method: ASTM D3330		
D		
Dwell/Cure Time: 72 Dwell Time Units: hr		
Temp C: 23C		
Temp F: 72F		
Environmental Condition: 50%RH		
Substrate: Epoxy		
Notes: 12 in/min (300 mm/min)		
180° Peel Adhesion	9.3 N/cm (85 oz/in)	View ^

Test Method: ASTM D3330

Dwell/Cure Time: 72 Dwell Time Units: hr Temp C: 23C Temp F: 72F

Environmental Condition: 50%RH Substrate: ABS

Notes: 12 in/min (300 mm/min)

Environmental Condition: 50%RH Substrate: Polypropylene (PP)

Notes: 12 in/min (300 mm/min)

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180° Peel Adhesion	85 oz/in	View ^	
Test Method: ASTM D3330  Dwell/Cure Time: 72  Dwell Time Units: hr  Temp C: 23C  Temp F: 72F  Environmental Condition: 50%RH  Substrate: ABS  Notes: 12 in/min (300 mm/min)			
180° Peel Adhesion	9.8 N/cm (90 oz/in)	View ^	
Test Method: ASTM D3330  Dwell/Cure Time: 72  Dwell Time Units: hr  Temp C: 23C  Temp F: 72F  Environmental Condition: 50%RH  Substrate: Polyvinyl chloride (PVC)  Notes: 12 in/min (300 mm/min)			
180° Peel Adhesion	90 oz/in	View ^	
Test Method: ASTM D3330  Dwell/Cure Time: 72  Dwell Time Units: hr  Temp C: 23C  Temp F: 72F  Environmental Condition: 50%RH  Substrate: Polyvinyl chloride (PVC)  Notes: 12 in/min (300 mm/min)			
180° Peel Adhesion	8.7 N/cm (80 oz/in)	View ^	
Test Method: ASTM D3330  Dwell/Cure Time: 72  Dwell Time Units: hr  Temp C: 23C  Temp F: 72F  Environmental Condition: 50%RH  Substrate: Polypropylene (PP)  Notes: 12 in/min (300 mm/min)			
180° Peel Adhesion	80 oz/in	View ^	
Test Method: ASTM D3330  Dwell/Cure Time: 72  Dwell Time Units: hr  Temp C: 23C  Temp F: 72F  Environmental Condition: 50%RH			

View ^ 180° Peel Adhesion 15.8 N/cm (145 oz/in) Test Method: ASTM D3330 Dwell/Cure Time: 72 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Glass Notes: 12 in/min (300 mm/min) 180° Peel Adhesion View ^ 145 oz/in Test Method: ASTM D3330 Dwell/Cure Time: 72 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Glass Notes: 12 in/min (300 mm/min) View ^ 180° Peel Adhesion 3.8 N/cm (35 oz/in) Test Method: ASTM D3330 Dwell/Cure Time: 72 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: High Density Polyethylene (HDPE) Notes: 12 in/min (300 mm/min) View ^ 180° Peel Adhesion 35 oz/in Test Method: ASTM D3330 Dwell/Cure Time: 72 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: High Density Polyethylene (HDPE) Notes: 12 in/min (300 mm/min) View ^ 180° Peel Adhesion 4.4 N/cm (40 oz/in) Test Method: ASTM D3330 Dwell/Cure Time: 72 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Low Density Polyethylene (LDPE) Notes: 12 in/min (300 mm/min) 180° Peel Adhesion View ^ 40 oz/in Test Method: ASTM D3330 Dwell/Cure Time: 72 Dwell Time Units: hr Temp C: 23C Temp F: 72F

Environmental Condition: 50%RH Substrate: Low Density Polyethylene (LDPE)

Notes: 12 in/min (300 mm/min)

180° Peel Adhesion	10 N/cm (95 oz/in)	View ^	
Test Method: ASTM D3330			
Dwell/Cure Time: 72 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Aluminum			
Notes: 12 in/min (300 mm/min)			
180° Peel Adhesion	95 oz/in	View ^	
Test Method: ASTM D3330			
Dwell/Cure Time: 72 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Aluminum			
Notes: 12 in/min (300 mm/min)			
180° Peel Adhesion	16.4 N/cm (150 oz/in)	View ^	
Test Method: ASTM D3330			
Dwell/Cure Time: 72 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Stainless Steel Notes: 12 in/min (300 mm/min)			
180° Peel Adhesion	150 oz/in	View ^	
Test Method: ASTM D3330			
Dwell/Cure Time: 72 Dwell Time Units: hr Temp C: 23C Temp F: 72F Environmental Condition: 50%RH Substrate: Stainless Steel			
Notes: 12 in/min (300 mm/min)			
Liner Release	44 g/in		

## Available Sizes

Property	Values	Additional Information	
Note	Subject to Minimum Order Requirements		

Standard Roll Length	60 yd	
Maximum Length	54.9 m (60 yd)	View ^
Width: 1/8 in to 3/8 in width		
Maximum Length	60 yd	View ^
Width: 1/8 in to 3/8 in width		
Maximum Length	165 m (180 yd)	View ^
Width: 3/8 in to 1/2 in width		
Maximum Length	180 yd	View ^
Width: 3/8 in to 1/2 in width		
Maximum Length	329 m (360 yd)	View ^
Width: 1/2 in to 1 in widths		
Maximum Length	360 yd	View ^
Width: 1/2 in to 1 in widths		
Maximum Length	329 m (360 yd)	View ^
Width: 1 in to maximum		
Maximum Length	360 yd	View ^
Width: 1 in to maximum		
Maximum Available Width	48 in	
Normal Slitting Tolerance	± 0.8 mm (± 1/32 in)	
Normal Slitting Tolerance	± 1/32 in	
Core Size (ID)	76.2 mm (2 in)	
JOI G 0126 (1D)	76.2 mm (3 in)	
Core Size (ID)	3 in	

Product retains its performance and properties for 24 months from date of manufacture if properly stored at room temperature conditions of 72°F (22°C) and 50% R.H. Storage in a plastic bag is recommended.

#### Handling/Application Information

#### **Application Examples**

Ideal adhesive application temperature range is 70°F to 100°F (21°C to 38°C). Initial 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 satisfactory. For more specific information, contact our toll free 3M sales assistance number at 1-800-362-3550.

2 mil thick tapes may 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**

For maximum bond strength the surface should be thoroughly cleaned and dried. Typical cleaning solvents are heptane or isopropyl alcohol. Consult manufacturer's Material Safety Data Sheet for proper handling and storage instructions. Bond strength can also be improved with firm application pressure and moderate heat (for metal surfaces only), from 100°F (38°C) to 130°F (54°C), causing the adhesive to develop intimate contact with the bonding surfaces.

#### References

Property	Values
3m.com Product Page	https://www.3m.com/3M/en_US/company-us/all-3m-products/~/3M-Adhesive-Transfer-Tape-9485PC/? N=5002385+3293241558&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=9485PC

## Family Group

Link Tags:

9442

9445

9482PC

9485P0

9485EK

0075

Products	Adhesive Type	Liner	Liner Thickness	Total Tape Thickness	Short Term Temperature Resistance	Long Term Temperature Resistance	Minimum Long Term Temperature Resistance
9442	Acrylic	55# Densified Kraft	0.08 mm	0.05 mm	232 °C	250 °F	-40 °C
9445	Acrylic	55# Densified Kraft	0.08 mm	0.127 mm	232 °C	250 °F	-40 °C
9482PC	Acrylic	62# Polycoated Kraft	0.11 mm	0.05 mm	232 °C	250 °F	-40 °C
9485PC	Acrylic	62# Polycoated Kraft	0.11 mm	0.127 mm	232 °C	250 °F	-40 °C
9485EK	Acrylic	78# Extensible Polycoated Kraft	0.14 mm	0.127 mm	232 °C	250 °F	-40 °C
9675	Acrylic	83# Polycoated Kraft lay flat, tan with green "3M" print	0.16 mm	0.127 mm	232 °C	250 °F	-40 °C

### ISO Statement

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

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