

September, 2002

## 3M™ Adhesive Transfer Tape 9485EK

### Product Description

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.



# 3M™ Adhesive Transfer Tape 9485EK

## 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.

## Typical Physical Properties

Property	Values		Notes
Adhesive Thickness	0.127 mm	5 mil	The thickness listed is based on a calculation from manufacturing controlled adhesive coat weights using a density of 1.012 g/cc. While past data pages have listed nominal thicknesses, the coat weight (and theoretical caliper) has not changed.
Liner	78# Extensible Polycoated Kraft		
Liner Thickness	0.14 mm	5.7 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

Relative High Temperature Operating Ranges		Test Condition
232 °C	450 °F	Short Term (minutes, hours)
121 °C	250 °F	Long Term (days, weeks)

Property: Relative High Temperature Operating Ranges

**Typical Performance Characteristics (continued)**

Static Shear	Test Condition
10,000 min	1000 g load @ Room Temperature
10,000 min	500 g load @ 70°C (158°F)
10,000 min	400 g load @ 93°C (200°F)
10,000 min	300 g load @ 121°C (250°F)
10,000 min	300 g load @ 149°C (300°F)
10,000 min	300 g load @ 177°C (350°F)
10,000 min	200 g load @ 232°C (450°F)

Property: Static Shear  
 notes: 1in x 1in size; test terminated after 10,000 minutes

180° Peel Adhesion		Substrate
16.4 N/cm	150 oz/in	Stainless Steel
15.8 N/cm	145 oz/in	Painted Metal
15.8 N/cm	145 oz/in	Polycarbonate (PC)
13.6 N/cm	125 oz/in	Acrylic (PMMA)
13.1 N/cm	120 oz/in	Epoxy
9.3 N/cm	85 oz/in	ABS
9.8 N/cm	90 oz/in	Polyvinyl chloride (PVC)
8.7 N/cm	80 oz/in	Polypropylene (PP)
15.8 N/cm	145 oz/in	Glass
3.8 N/cm	35 oz/in	High Density Polyethylene (HDPE)
4.4 N/cm	40 oz/in	Low Density Polyethylene (LDPE)
10 N/cm	95 oz/in	Aluminum

Property: 180° Peel Adhesion  
 Method: ASTM D3330  
 Dwell/Cure Time: 72 hr @ Room Temperature

Property	Values	
Lower Service Temperature Limit	-40 °C	-40 °F
Typical Liner Release Values	37 g/in	

**Available Sizes**

Property	Values	
Note	Subject to Minimum Order Requirements	
Standard Length	60 yd	
Maximum Available Width	48 in	
Normal Slitting Tolerance	± 0.8 mm	± 1/32 in
Core Size (ID)	76.2 mm	3 in

Maximum Length		Width
54.9 m	60 yd	1/8 in to 3/8 in width
165 m	180 yd	3/8 in to 1/2 in width
329 m	360 yd	1/2 in to 1 in widths
329 m	360 yd	1 in to maximum

Property: Maximum Length

**Handling/Application Information****Application Ideas**

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.

**Storage and Shelf Life**

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.

**References****Safety Data Sheet (SDS)**

[https://www.3m.com/3M/en\\_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en\\_US&co=ptn&q=9485EK](https://www.3m.com/3M/en_US/company-us/SDS-search/results/?gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=9485EK)

# 3M™ Adhesive Transfer Tape 9485EK

## Family Group

	9442	9445	9482PC	9485PC	9485EK	9675
Relative High Temperature Operating Ranges (°C) Test Condition: Short Term (minutes, hours)	232	232	232	232	232	232
Relative High Temperature Operating Ranges (°C) Test Condition: Long Term (days, weeks)	121	121	121	121	121	121
Adhesive Thickness (mm)	0.05	0.127	0.05	0.127	0.127	0.127
Liner	55# Densified Kraft	55# Densified Kraft	62# Polycoated Kraft	62# Polycoated Kraft	78# Extensible Polycoated Kraft	83# Polycoated Kraft lay flat, tan with green "3M" print
Liner Thickness (mm)	0.08	0.08	0.11	0.11	0.14	0.16

## ISO Statement

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

## Important Notice

3M MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. User is responsible for determining whether the 3M product is fit for a particular purpose and suitable for user's method of application. Please remember that many factors can affect the use and performance of a 3M product in a particular application. The materials to be bonded with the product, the surface preparation of those materials, the product selected for use, the conditions in which the product is used, and the time and environmental conditions in which the product is expected to perform are among the many factors that can affect the use and performance of a 3M product. Given the variety of factors that can affect the use and performance of a 3M product, some of which are uniquely within the user's knowledge and control, it is essential that the user evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for the user's method of application.

## For Additional Information

To request additional product information or to arrange for sales assistance, call toll free 1-800-223-7427 or visit [www.3m.com/converter](http://www.3m.com/converter). 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, these products should not present a health and safety hazard. However, use or processing of these 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. UL: Tapes 9442 and 9445 have been recognized by Underwriters Laboratories Inc. under Standard UL 969 Marking and Labeling in File MH26206. Tapes 9482PC and 9485PC have been recognized by Underwriters Laboratories Inc. under Standard UL 746C Polymeric Adhesives Systems, Electrical Equipment Component in File MH17478. If you require official recognition of any 350 adhesive under either UL 969 or UL 746C, please contact 3M-customer service at 1-800-362-3550. For more information on the UL Certification, please visit the website at <http://www.3m.com/converter>, select UL Recognized Materials, and then select the specific product area.

### Limitation of Remedies and Liability

If the 3M product is proved to be defective, THE EXCLUSIVE REMEDY, AT 3M'S OPTION, SHALL BE TO REFUND THE PURCHASE PRICE OF OR TO REPAIR OR REPLACE THE DEFECTIVE 3M PRODUCT. 3M shall not otherwise be liable for loss or damages, whether direct, indirect, special, incidental, or consequential, regardless of the legal theory asserted, including, but not limited to, contract, negligence, warranty, or strict liability.

