

September, 2002

3M™ Adhesive Transfer Tape 9485PC

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.

Typical Physical Properties

| Property | Values | | Method |
|----------------------|---|----------|------------|
| Total Tape Thickness | 5 mil | 0.127 mm | ASTM D3652 |
| Liner Print | None | | |
| Liner Thickness | 4.2 mil | 0.11 mm | |
| 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. | | |
| Adhesive Type | Acrylic | | |
| Liner | 62# Polycoated Kraft | | |

Typical Performance Characteristics

| Property | Values | | Test Condition |
|--|---------|--------|----------------------------|
| Short Term Temperature Resistance | 450 °F | 232 °C | Short Term (minutes, hour) |
| Long Term Temperature Resistance | 250 °F | 121 °C | Long Term (day, weeks) |
| Minimum Long Term Temperature Resistance | -40 °F | -40 °C | Long Term (day, weeks) |
| Liner Release | 44 g/in | | |

Typical Performance Characteristics (continued)

| Static Shear | Test Condition |
|--------------|----------------------------|
| 10000 min | 1000 g @ Room Temperature |
| 10000 min | 500 g @ 70°C (158°F) |
| 10000 min | 400 g @ 93°C (200°F) |
| 10000 min | 300 g @ 121°C (250°F) |
| 10000 min | 300 g @ 149°C (300°F) |
| 10000 min | 300 g @ 177°C (350°F) |
| 10000 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 |
|--------------------|-----------|----------------------------------|
| 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 |
| 16.4 N/cm | 150 oz/in | Stainless Steel |

Property: 180° Peel Adhesion
 Method: ASTM D3330
 Dwell/Cure Time: 72
 Dwell Time Units: hr
 Temp C: 23C
 Temp F: 72F
 Environmental Condition: 50%RH
 notes: 12 in/min (300 mm/min)

Available Sizes

| Property | Values | |
|----------------------|---------------------------------------|--|
| Note | Subject to Minimum Order Requirements | |
| Standard Roll Length | 60 yd | |

Table continued on next page

Available Sizes (continued)

| Property | Values | |
|---------------------------|----------|-----------|
| 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 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.

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

| 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

| | 9442 | 9445 | 9482PC | 9485PC | 9485EK | 9675 |
|---|---------------------|---------------------|----------------------|----------------------|---------------------------------|--|
| Long Term Temperature Resistance (°F) Test Condition: Long Term (day, weeks) | 250 | 250 | 250 | 250 | 250 | 250 |
| Short Term Temperature Resistance (°C) Test Condition: Short Term (minutes, hour) | 232.2222 | 232.2222 | 232.2222 | 232.2222 | 232.2222 | 232.2222 |
| Long Term Temperature Resistance (°C) Test Condition: Long Term (day, weeks) | 121.1111 | 121.1111 | 121.1111 | 121.1111 | 121.1111 | 121.1111 |
| Minimum Long Term Temperature Resistance (°C) Test Condition: Long Term (day, weeks) | -40 | -40 | -40 | -40 | -40 | -40 |
| Total Tape Thickness (mm) | 0.05 | 0.127 | 0.05 | 0.127 | 0.127 | 0.127 |
| Adhesive Type | Acrylic | Acrylic | Acrylic | Acrylic | Acrylic | Acrylic |
| 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.

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. 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.

Information

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