

# February, 2015

# 3M<sup>™</sup> Adhesive Transfer Tape with Plasticizer Resistant Adhesive F9465PC

# **Product Description**

3M<sup>™</sup> Adhesive Transfer Tape F9465PC is an acrylic pressure sensitive adhesive which has been formulated for bonding to many flexible vinyls and provide outstanding resistance to the effects of plasticizer migration from flexible vinyls.



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#### **General Information**

Note: Vinyl formulations differ and plasticizer types and amounts can vary. The most common types of Plasticized Vinyl contain low molecular weight materials (plasticizers) which tend to migrate out of the vinyl. In the case of adhesive bonding, these plasticizers migrate into the adhesive which can cause softening of the adhesive and loss of bond strength over time.

The possible effect of plasticizer migration on an adhesive bond can be predicted by accelerated aging for 5 days at elevated temperature (150°F [65°C]). Note: Due to the variability of vinyl formulations, we strongly recommend that the user test each vinyl substrate to determine suitability of the tape for the particular application.
Natural and synthetic rubber materials such as neoprene and EPDM are also formulated with fillers and plasticizers. Note: 3M™ Adhesive Transfer Tape F-9465PC does not resist the effects of these particular fillers and plasticizers and is not recommended for use in bonding these materials.

#### **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     | Test Name |
|----------------------|------------------|---------|------------|-----------|
| Total Tape Thickness | 0.13 mm          | 5 mil   | ASTM D3652 |           |
| Adhesive Type        | Acrylic          |         |            |           |
| Liner                | Polycoated Paper |         |            |           |
| Liner Print          | None             |         |            |           |
| Liner Color          | Tan, printed     |         |            | Primary   |
| Liner Thickness      | 0.1 mm           | 4.2 mil |            |           |

# **Typical Performance Characteristics**

| Property                                | Values |           | Test<br>Condit                    | i <b>ð h</b> otes | Method | Dwell/0<br>d Time | Dwell<br>CTimene<br>Units | Temp<br>C | Temp<br>F | mental<br>ichubstrate |
|---|--------|-----------|-----------------------------------|-------------------|--------|-------------------|---------------------------|-----------|-----------|-----------------------|
| Short<br>Term<br>Temperat<br>Resistance |        | 300<br>°F | Short<br>Term<br>(minute<br>hour) | 25,               |        |                   |                           |           |           |                       |
| Long<br>Term<br>Temperat<br>Resistance  |        | 200<br>°F | Long<br>Term<br>(day,<br>weeks)   |                   |        |                   |                           |           |           |                       |

Table continued on next page

# **Typical Performance Characteristics (continued)**

| Property                 | Values       |             | Test<br>Condit              | i <b>ðh</b> otes   | Method        | Dwell/0<br>I Time | Dwell<br>Climene<br>Units | Temp<br>C | Temp<br>F | -     | imental<br>Gubstrate |
|--------------------------|--------------|-------------|-----------------------------|--|---------------|-------------------|---------------------------|-----------|-----------|-------|----------------------|
| Static<br>Shear          | 10000<br>min |             | 500<br>g @<br>Room<br>Tempe | 1/2 in x 1 in sample size; Test terminated at 10,000 min<br>rature |               |                   |                           |           |           |       |                      |
| 180°<br>Peel<br>Adhesion | 8.1<br>N/cm  | 74<br>oz/in |                             | 12 in/min (300 mm/min)   | ASTM<br>D3330 | 72                | hr                        | 23C       | 72F       | 50%RH | Stainless<br>Steel   |

# **Available Sizes**

| Property     | Values    |       | Notes  |
|--------------|-----------|-------|--|
| Master Width | 1371.6 mm | 54 in | More sizes may be available. Please talk to your local 3M representative for more information. |

#### **Typical Environmental Performance**

#### **Environmental Resistance**

Bond Build-up: The bond strength of 3M™ Plasticizer Resistant Adhesive increases as a function of time and temperature

Temperature/Heat Resistance: 3M<sup>™</sup> Plasticizer Resistant Adhesive is usable for short periods (minutes, hours) at temperatures up to 200°F (94°C) and for intermittent longer periods (days, weeks) up to 160°F (71°C).

Lower Temperature Service Limit: -40°F (-40°C).

UV Resistance: When properly applied, parts are not adversely affected by outdoor exposure.

# Handling/Application Information

#### **Application Examples**

- Attaching flexible vinyl graphics to sporting helmets
- Attaching flexible vinyl films and graphics to signs
- Attaching flexible vinyl graphics to vehicles
- Attaching flexible vinyl graphics to collectibles
- Attaching flexible vinyl tubing

# Storage and Shelf Life

Store in original cartons at 70°F (21°C) and 50% relative humidity. When stored under proper conditions, product retains its performance and properties for 24 months from date of manufacture.

#### Trademarks

3M is a trademark of 3M Company.

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#### References

| Property              | Values  |
|-----------------------|---|
| 3m.com Product Page   | https://www.3m.com/3M/en_US/company-us/all-3m-products/~/3M-<br>Adhesive-Transfer-Tape-F9465PC/?N=5002385+3293241839&rt=rud |
| Safety Data Sheet SDS | https://www.3m.com/3M/en_US/company-us/SDS-search/results/?<br>gsaAction=msdsSRA&msdsLocale=en_US&co=ptn&q=F9465PC          |

# **Family Group**

|  | F9465PC          | F9467U           |
|--|------------------|------------------|
| Short Term Temperature<br>Resistance (°C)<br>Test Condition: Short<br>Term (minutes, hour) | 149              | 149              |
| Liner Color<br>Test Name: Primary  | Tan, printed     | Tan              |
| Long Term Temperature<br>Resistance (°C)<br>Test Condition: Long<br>Term (day, weeks)      | 93               | 93               |
| Total Tape Thickness<br>(mm)   | 0.13             | 0.089            |
| Adhesive Type  | Acrylic          | Acrylic          |
| Liner  | Polycoated Paper | Polycoated 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 Industrial Adhesives and Tapes Division, Building 21-1W-10, 900 Bush Avenue, St. Paul, MN 55144-1000. Our fax number is 651-778-4244. In Canada, phone: 1-800-364-3577. In Puerto Rico, phone: 1-787-750-3000. In Mexico, phone: 52-70-04-00.

#### **Recognition/Certification**

TSCA: This product is defined as an article under the Toxic Substances Control Act and therefore, it is exempt from inventory listing requirements

MSDS: 3M has not prepared a MSDS for this product which is not subjected 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, this product should not present a health and safety hazard. However, use or processing of the product in a manner not in accordance with the directions for use may affect its performance and present potential health and safety hazards.

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