

## 3M 9085 Ultra High Temperature 100 HT Adhesive Transfer Tape

Category : Polymer , Adhesive

### Material Notes:

3M™ Ultra High Temperature 100HT Adhesive Transfer Tapes 9082 and 9085 utilize a high performance and low outgassing adhesive system having excellent heat resistance in high temperature environments. Not only does it have excellent holding power, but also its adhesion strength is significantly higher than typical pressure sensitive tapes. 3M™ Ultra High Temperature 100HT Adhesive Transfer Tapes 9082UV and 9085UV have a UV fluoresce agent to allow black light inspection during converting and assembly. These adhesive transfer tapes are ideal for use in many industrial applications subjected to higher temperature environments. Typical examples are for automotive under-hood applications that require both higher processing and operating temperatures. Other areas include printed circuit boards and heat sink bonding in many electronics applications subjected to high solder reflow temperatures. Information provided by 3M

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_3M-9085-Ultra-High-Temperature-100-HT-Adhesive-Transfer-Tape.php](http://www.lookpolymers.com/polymer_3M-9085-Ultra-High-Temperature-100-HT-Adhesive-Transfer-Tape.php)

| Physical Properties | Metric       | English       | Comments      |
|---------------------|--------------|---------------|---------------|
| Density             | 0.980 g/cc   | 0.0354 lb/in³ |               |
| Thickness           | 81.3 microns | 3.20 mil      | Release Liner |
|                     | 127 microns  | 5.00 mil      | Adhesive      |

| Mechanical Properties     | Metric               | English              | Comments                                      |
|---------------------------|----------------------|----------------------|-----------------------------------------------|
| Tensile Strength at Break | 0.0350 MPa           | 5.08 psi             | T-Block on Aluminum; ASTM D987                |
|                           | @Temperature 230 °C  | @Temperature 446 °F  |                                               |
|                           | 0.0700 MPa           | 10.2 psi             | T-Block on Aluminum; ASTM D987                |
|                           | @Temperature 107 °C  | @Temperature 225 °F  |                                               |
|                           | 0.0700 MPa           | 10.2 psi             | T-Block on Aluminum; ASTM D987                |
|                           | @Temperature 150 °C  | @Temperature 302 °F  |                                               |
|                           | 0.0700 MPa           | 10.2 psi             | T-Block on Aluminum; ASTM D987                |
|                           | @Temperature 175 °C  | @Temperature 347 °F  |                                               |
|                           | 0.345 MPa            | 50.0 psi             | T-Block on Aluminum; ASTM D987                |
|                           | @Temperature 23.0 °C | @Temperature 73.4 °F |                                               |
| Shear Strength            | 0.0689 MPa           | 10.0 psi             | Over-Lap Shear on Stainless Steel; ASTM D1002 |
|                           | @Temperature 230 °C  | @Temperature 446 °F  |                                               |
|                           | 0.103 MPa            | 15.0 psi             | Over-Lap Shear on Stainless Steel; ASTM D1002 |
|                           | @Temperature 175 °C  | @Temperature 347 °F  |                                               |

| Mechanical Properties | 0.172 MPa<br>Metric  | 25.0 psi<br>English  | Over-Lap Shear on Stainless Steel;<br>ASTM D1002 |
|-----------------------|----------------------|----------------------|--------------------------------------------------|
|                       | @Temperature 150 °C  | @Temperature 302 °F  |                                                  |
|                       | 0.207 MPa            | 30.0 psi             | Over-Lap Shear on Stainless Steel;<br>ASTM D1002 |
|                       | @Temperature 107 °C  | @Temperature 225 °F  |                                                  |
|                       | 0.552 MPa            | 80.0 psi             | Over-Lap Shear on Stainless Steel;<br>ASTM D1002 |
|                       | @Temperature 23.0 °C | @Temperature 73.4 °F |                                                  |
| Peel Strength         | 0.175 kN/m           | 1.00 pli             | Adhesion on Aluminum; ASTM D3330                 |
|                       | @Temperature 230 °C  | @Temperature 446 °F  |                                                  |
|                       | 0.526 kN/m           | 3.00 pli             | Adhesion on Aluminum; ASTM D3330                 |
|                       | @Temperature 175 °C  | @Temperature 347 °F  |                                                  |
|                       | 0.701 kN/m           | 4.00 pli             | Adhesion on Aluminum; ASTM D3330                 |
|                       | @Temperature 150 °C  | @Temperature 302 °F  |                                                  |
|                       | 0.877 kN/m           | 5.00 pli             | Adhesion on Aluminum; ASTM D3330                 |
|                       | @Temperature 107 °C  | @Temperature 225 °F  |                                                  |
|                       | 1.05 kN/m            | 6.00 pli             | Adhesion on Aluminum; ASTM D3330                 |
|                       | @Temperature 23.0 °C | @Temperature 73.4 °F |                                                  |

| Thermal Properties               | Metric                                         | English                                          | Comments   |
|----------------------------------|------------------------------------------------|--------------------------------------------------|------------|
| CTE, linear                      | 77.0 $\mu\text{m}/\text{m}\cdot^\circ\text{C}$ | 42.8 $\mu\text{in}/\text{in}\cdot^\circ\text{F}$ |            |
| Thermal Conductivity             | 0.669 W/m-K                                    | 4.64 BTU-in/hr-ft <sup>2</sup> -°F               | ASTM C177  |
| Maximum Service Temperature, Air | 177 °C                                         | 351 °F                                           | Long term  |
|                                  | 280 °C                                         | 536 °F                                           | Short term |

| Electrical Properties | Metric                    | English                   | Comments      |
|-----------------------|---------------------------|---------------------------|---------------|
| Insulation Resistance | $\geq 1.00\text{e}+6$ ohm | $\geq 1.00\text{e}+6$ ohm | ASTM D1000    |
| Dielectric Strength   | 11.8 kV/mm                | 300 kV/in                 | ASTM D149-97A |
|                       | @Temperature 23.0 °C      | @Temperature 73.4 °F      |               |
|                       | 30.3 kV/mm                | 770 kV/in                 | ASTM D149-97A |
|                       | @Temperature 175 °C       | @Temperature 347 °F       |               |
|                       | 34.3 kV/mm                | 870 kV/in                 | ASTM D149-97A |
|                       | @Temperature 150 °C       | @Temperature 302 °F       |               |

| Electrical Properties | 47.2 kV/mm<br>Metric | 1200 kV/in<br>English | Comments |
|-----------------------|----------------------|-----------------------|----------|
|                       | @Temperature 23.0 °C | @Temperature 73.4 °F  | 1-97A    |

| Processing Properties | Metric     | English    | Comments |
|-----------------------|------------|------------|----------|
| Shelf Life            | 24.0 Month | 24.0 Month |          |

| Descriptive Properties | Value            | Comments |
|------------------------|------------------|----------|
| Adhesive Type          | Acrylic Adhesive |          |
| Liner                  | Brown paper      |          |

## Contact Songhan Plastic Technology Co.,Ltd.

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