

## Arlon Thermabond® 99A90N008 Primerless Electronic Adhesive (discontinued \*\*)

Category : Polymer , Adhesive , Thermoset , Rubber or Thermoset Elastomer (TSE) , Silicone , Silicone Rubber

### Material Notes:

Electrically insulating, thermally conductive, electronic adhesive. Bonds without primer.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Arlon-Thermabond-99A90N008-Primerless-Electronic-Adhesive-nbspdiscontinued-.php](http://www.lookpolymers.com/polymer_Arlon-Thermabond-99A90N008-Primerless-Electronic-Adhesive-nbspdiscontinued-.php)

| Physical Properties | Metric      | English   | Comments                             |
|---------------------|-------------|-----------|--------------------------------------|
| Specific Gravity    | 1.85 g/cc   | 1.85 g/cc | Silicone Property; Arlon SQA-TMS-024 |
| Thickness           | 203 microns | 8.00 mil  | Arlon SQA-TMS-003                    |

| Mechanical Properties      | Metric      | English   | Comments  |
|----------------------------|-------------|-----------|---|
| Hardness, Shore A          | 87          | 87        | Silicone Property; ASTM D2240                   |
| Tensile Strength, Ultimate | 2.52 MPa    | 365 psi   | Silicone Property; ASTM D412                    |
| Elongation at Break        | 28 %        | 28 %      | Silicone Property; ASTM D412                    |
| Modulus of Elasticity      | 0.0621 GPa  | 9.00 ksi  | 1% strain, Silicone Property; Arlon SQA-TMS-008 |
| Poissons Ratio             | 0.50        | 0.50      |   |
| Shear Modulus              | 0.00183 GPa | 0.265 ksi | up to 100% strain; ASTM D1002                   |
| Shear Strength             | 0.965 MPa   | 140 psi   | Lap; ASTM D1002                                 |

| Thermal Properties               | Metric   | English  | Comments                       |
|----------------------------------|--|--|--------------------------------|
| CTE, linear                      | 52.0 $\mu\text{m}/\text{m}\cdot^{\circ}\text{C}$ | 28.9 $\mu\text{in}/\text{in}\cdot^{\circ}\text{F}$ | Silicone Property; ASTM E 831  |
|                                  | @Temperature 20.0 $^{\circ}\text{C}$             | @Temperature 68.0 $^{\circ}\text{F}$               |                                |
| Specific Heat Capacity           | 0.850 J/g- $^{\circ}\text{C}$                    | 0.203 BTU/lb- $^{\circ}\text{F}$                   | Silicone Property; ASTM E 1952 |
|                                  | @Temperature 100 $^{\circ}\text{C}$              | @Temperature 212 $^{\circ}\text{F}$                |                                |
| Thermal Conductivity             | 3.00 W/m-K                                       | 20.8 BTU-in/hr-ft $^2$ - $^{\circ}\text{F}$        | Silicone Property; ASTM E 1530 |
|                                  | 3.38667 W/m-K                                    | 23.5035 BTU-in/hr-ft $^2$ - $^{\circ}\text{F}$     |                                |
|                                  | @Temperature 100 $^{\circ}\text{C}$              | @Temperature 212 $^{\circ}\text{F}$                | Arlon SQA-TMS-054              |
| Maximum Service Temperature, Air | 95.6 $^{\circ}\text{C}$                          | 204 $^{\circ}\text{F}$                             |                                |
| Minimum Service Temperature, Air | -73.3 $^{\circ}\text{C}$                         | -100 $^{\circ}\text{F}$                            |                                |

| Thermal Properties  | Metric | English | Comments             |
|---------------------|--------|---------|----------------------|
| Softening Point, Tg |        |         | Property; ASTM D3418 |

| Electrical Properties | Metric                | English               | Comments                                |
|-----------------------|-----------------------|-----------------------|---|
| Dielectric Constant   | 4.602                 | 4.602                 | Silicone Property; IPC TM 650 - 2.5.5.3 |
|                       | @Frequency 1.00e+6 Hz | @Frequency 1.00e+6 Hz |   |
| Dielectric Strength   | 35.4 kV/mm            | 900 kV/in             | ASTM D149                               |
| Dissipation Factor    | 0.0041                | 0.0041                | Silicone Property; IPC TM 650 - 2.5.5.3 |
|                       | @Frequency 1.00e+6 Hz | @Frequency 1.00e+6 Hz |   |

| Processing Properties | Metric                                  | English                                | Comments |
|-----------------------|---|--|----------|
| Cure Time             | 15.0 min                                | 0.250 hour                             |          |
|                       | @Pressure 0.345 MPa, Temperature 121 °C | @Pressure 50.0 psi, Temperature 250 °F |          |
| Shelf Life            | 6.00 Month                              | 6.00 Month                             |          |
|                       | @Temperature 7.00 °C                    | @Temperature 44.6 °F                   |          |

| Descriptive Properties            | Value             | Comments |
|-----------------------------------|-------------------|----------|
| Color                             | Gray              |          |
| Plasticity (mm) Arlon SQA-TMS-005 | Silicone Property |          |

## Contact Songhan Plastic Technology Co.,Ltd.

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