

## Arlon Thermabond® 48A43X008 0.008"(0.203 mm) Cured Silicone Rubber with Fiberglass Substrate

Category : Polymer , Thermoset , Silicone , Silicone Rubber , Silicone, Molded, Glass Fiber Filled

### Material Notes:

Description: Thermabond® Electrically insulating, thermally conductive, thermal interface material (TIM).Design/Construction: Side 1:

Cured Silicone RubberSubstrate: Style 1080 FiberglassSide 2: Cured Silicone RubberLiner: Polyethylene This data represents typical values

for the production material. The data should not be used to write, or in place of, material specifications.Information provided by Arlon,

Silicone Technologies Division

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Arlon-Thermabond-48A43X008-00080203-mm-Cured-Silicone-Rubber-with-Fiberglass-Substrate.php](http://www.lookpolymers.com/polymer_Arlon-Thermabond-48A43X008-00080203-mm-Cured-Silicone-Rubber-with-Fiberglass-Substrate.php)

| Physical Properties | Metric       | English                  | Comments                             |
|---------------------|--------------|--------------------------|--------------------------------------|
| Density             | 2.80 g/cc    | 0.101 lb/in <sup>3</sup> | Silicone Property; Arlon SQA-TMS-024 |
| Thickness           | 63.5 microns | 2.50 mil                 | Side 1; Arlon SQA-TMS-003            |
|                     | 63.5 microns | 2.50 mil                 | Side 2; Arlon SQA-TMS-003            |
|                     | 76.2 microns | 3.00 mil                 | Substrate; Arlon SQA-TMS-003         |
|                     | 203 microns  | 8.00 mil                 | Overall; Arlon SQA-TMS-003           |

| Mechanical Properties   | Metric           | English          | Comments                             |
|-------------------------|------------------|------------------|--------------------------------------|
| Hardness, Shore A       | 77               | 77               | Silicone Property; ASTM D2240        |
| Tensile Strength        | 4.72 MPa         | 685 psi          | Silicone Property; ASTM D412         |
| Tensile Strength, Yield | 24.5 MPa         | 3550 psi         | Silicone Property; Arlon SQA-TMS-008 |
|                         | @Strain <=1.00 % | @Strain <=1.00 % |                                      |
| Elongation at Break     | 120 %            | 120 %            | Silicone Property; ASTM D412         |
| Poissons Ratio          | 0.50             | 0.50             | Approximately, Silicone Property     |

| Thermal Properties     | Metric                     | English                    | Comments                             |
|------------------------|----------------------------|----------------------------|--------------------------------------|
| CTE, linear            | 150 µm/m-°C                | 83.3 µin/in-°F             | Silicone Property; ASTM E 831        |
|                        | @Temperature 20.0 - 160 °C | @Temperature 68.0 - 320 °F |                                      |
| Specific Heat Capacity | 0.820 J/g-°C               | 0.196 BTU/lb-°F            | Silicone Property; Arlon SQA-TMS-052 |
|                        | @Temperature 100 °C        | @Temperature 212 °F        |                                      |
|                        | 1.40 W/m-K                 | 9.72 BTU-in/hr-ft²-°F      |                                      |

| Thermal Properties               | Metric<br>@ Temperature 100 °C                               | English<br>@ Temperature 212 °F                                        | Silicone Property; ASTM E 1530<br>Comments |
|----------------------------------|--------------------------------------------------------------|------------------------------------------------------------------------|--------------------------------------------|
|                                  | 1.70 W/m-K<br><br>@Pressure 30.0 MPa,<br>Temperature 50.0 °C | 11.8 BTU-in/hr-ft²-°F<br><br>@Pressure 4350 psi,<br>Temperature 122 °F | Product Property; Arlon SQA-TMS-054        |
| Maximum Service Temperature, Air | 95.6 °C                                                      | 204 °F                                                                 |                                            |
| Minimum Service Temperature, Air | -73.3 °C                                                     | -100 °F                                                                |                                            |
| Glass Transition Temp, Tg        | 118 °C                                                       | 244 °F                                                                 | Silicone Property; ASTM D3418              |

| Electrical Properties | Metric                                 | English                                | Comments                               |
|-----------------------|----------------------------------------|----------------------------------------|----------------------------------------|
| Dielectric Constant   | 6.91<br><br>@Frequency 1.00e+6<br>Hz   | 6.91<br><br>@Frequency 1.00e+6<br>Hz   | Silicon Property; IPC TM 650 - 2.5.5.3 |
| Dielectric Strength   | 25.2 kV/mm                             | 640 kV/in                              | ASTM D149                              |
| Dissipation Factor    | 0.0044<br><br>@Frequency 1.00e+6<br>Hz | 0.0044<br><br>@Frequency 1.00e+6<br>Hz | Silicon Property; IPC TM 650 - 2.5.5.3 |

| Processing Properties | Metric                                           | English                                          | Comments                 |
|-----------------------|--------------------------------------------------|--------------------------------------------------|--------------------------|
| Shelf Life            | 60.0 Month<br><br>@Temperature 21.0 -<br>27.0 °C | 60.0 Month<br><br>@Temperature 69.8 -<br>80.6 °F | From date of manufacture |

| Descriptive Properties      | Value           | Comments          |
|-----------------------------|-----------------|-------------------|
| Color                       | Gray            |                   |
|                             | Naturally White | Substrate         |
| Plasticity                  | 2.3 mm          | Arlon-SQA-TMS-005 |
| Total Product Weight (g/m2) | 432             | Arlon SQA-TMS-025 |

## Contact Songhan Plastic Technology Co.,Ltd.

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