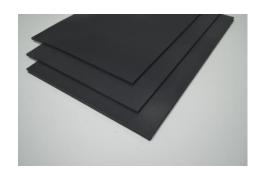


Technical Data Sheet

# **FUTUREWAY®RTL-A**

# **Ultra Soft Silicone Foam**

FUTUREWAY®RTL-A is an ultra-low density and high elasticity silicone foam. It has excellent flame resistance, friendly combustion behavior, high and low temperature resistance, ozone resistance, radiation resistance, and super compression deformation resistance. RTL-A can be used in the internal structures of rail trains, jet aircraft, aircraft and medical equipment operating in complex environments, with the functions of shock absorption, cushioning, thermal insulation, sealing, insulation, etc.



# **Features & Benefits**

- Cellular structure, ultra-low density
- Long-term UV and ozone aging resistance
- Meet the most stringent flame standards
- Meet the highest level of combustion behavior requirements

# **Typical Applications**

• Gasket, sealing gasket, shock pad, thermal insulation cotton, filler, etc.

### **Services**

- Available with a pressure sensitive-adhesive on one or two sides
- Provide cutting, splicing and other processing services

#### Use

For PSA options, surfaces must be clean and free of oil, grease, moisture, dust and dirt. Isopropyl alcohol is good for cleaning the surface.

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# **Typical Properties**

| Property                       | Unit                                     | <b>Test Method</b>  | Typical Value                | Specification    |
|--------------------------------|--|---|------------------------------|------------------|
| Physical                       |  |   |                              |                  |
| Color                          | -  | -   | Black                        | -                |
| Thickness                      | mm (inches)                              | -   | 3.18-12.70<br>(0.125-0.500)  | -                |
| Density                        | kg/m <sup>3</sup> (lb./ft <sup>3</sup> ) | ASTM D1056  | 180<br>(11)                  | ≤224<br>(≤13.98) |
| Compression Force Deflection   | kPa (psi)                                | ASTM D1056  | 10 (1.5)                     | 0-17<br>(0-2.5)  |
| Compression Set                | %  | ASTM D1056<br>100°C (212°F)/22hrs/50%                         | 2.9                          | <12              |
| Water Absorption               | %  | Internal 50mm (2") below water surface/24hrs/change in weight | 3.1                          | -                |
| Flammability                   |  |   |                              |                  |
| Flame Resistance               | -  | UL94  | Meets                        | V-0; HF-1        |
| Smoke Density                  | Ds                                       | EN ISO 5659-2   | Meets                        | ≤150             |
| Oxygen Index                   | %  | EN ISO 4589-2   | Meets                        | ≥32              |
| Thermal                        |  |   |                              |                  |
| Temperature Range              | °C (°F)                                  | Internal  | -55 to +200<br>(-67 to +392) | -                |
| Thermal Conductivity           | W/(m·K)                                  | ASTM C518   | 0.05                         | -                |
| Low Temperature<br>Flex        | -  | ASTM D1056<br>-55°C (-67°F)/5hrs                              | Pass                         | -                |
| Low Temperature<br>Brittleness | -  | ASTM D746<br>-55°C (-67°F)/3min                               | Pass                         | -                |

#### Notes

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<sup>\*</sup> Specification values in bold are tested on a batch basis.

<sup>\*\*</sup>Typical value is based on historical data. Please note the frequency of testing varies.

<sup>\*\*\*</sup>Specification applied to physical properties, which are based on Futureway internal benchmark.

<sup>\*\*\*\*</sup>Additional industry specifications are also available. All other properties are based on industry standard guidelines.



# **Standard Thickness Tolerances**

| Nominal Thickness | Tolerance         |  |
|-------------------|-------------------|--|
| mm (inches)       | mm (inches)       |  |
| 3.18 (0.125)      | ± 0.762 (± 0.030) |  |
| 4.76 (0.188)      | ± 0.762 (± 0.030) |  |
| 6.35 (0.250)      | ± 1.016 (± 0.040) |  |
| 9.53 (0.375)      | ± 1.524 (± 0.060) |  |
| 12.70 (0.500)     | ± 1.524 (± 0.060) |  |

# Slit Material and Tape (PSA) Width Tolerances

| Nominal Width       | Tolerance            |  |  |  |
|---------------------|----------------------|--|--|--|
| mm (inches)         | mm (inches)          |  |  |  |
| > 0~76 (> 0~3)      | ± 1.60 (± 0.063)     |  |  |  |
| > 76~203 (> 3~8)    | ± 2.39 (± 0.094)     |  |  |  |
| > 203~305 (> 8~12)  | ± 3.18 (± 0.125)     |  |  |  |
| > 305~457 (> 12~18) | ± 4.78 (± 0.188)     |  |  |  |
| > 457~660 (> 18~26) | ± 5.56 (± 0.219)     |  |  |  |
| > 660~914 (> 26~36) | + 25.4/- 0 (+ 1/- 0) |  |  |  |
|                     |                      |  |  |  |

**Usable Life & Storage** 

10 years after the date of manufacture when stored in original packaging at temperatures up to 35°C and 70% relative humidity(see applicable data sheets for pressure-sensitive adhesive option).

**Packaging Information** 

Master roll size: 914mm width. Length varies with thickness. Special thickness and roll sizes also available.

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