

FUTUREWAY®RTL-B

Extra Soft Silicone Foam

FUTUREWAY®RTL-B is a very 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-B 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
- FDA compliant in accordance with regulation 21 CFR 177.2600

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.

Statement: The information contained in this date sheet is intended to assist you in the design of Futureway materials. It is not intended to and does not create any explicit or implicit guaranties, including any guaranty of marketability of the goods and for special purposes. It is also not guaranteed that users can achieve the results shown in the technical specifications of this material in specific applications. They will change with different application situations, such as equipment type, environmental conditions, process conditions, etc. Users should determine the suitability of Futureway materials for each application.

Typical Properties

Property	Unit	Test Method	Typical Value	Specification
Physical				
Color	-	-	White, Gray, Black	-
Thickness	mm (inches)	-	1.59-25.40 (0.063-1.000)	-
Density	kg/m ³ (lb./ft ³)	ASTM D1056	200 (12.5)	156-316 (9.8-19.7)
Tensile Strength	kPa (psi)	ASTM D412	180 (26)	>140 (>20)
Elongation	%	ASTM D412	80	>60
Compression Force Deflection	kPa (psi)	ASTM D1056	18 (2.6)	7-35 (1-5)
Compression Set	%	ASTM D1056 100°C (212°F)/22hrs/50%	0.9	<5
Water Absorption	%	Internal 50mm (2") below water surface/24hrs/change in weight	1.5	<10
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 (-67 to +392)	-
Thermal Conductivity	W/(m·K)	ASTM C518	0.05	-
Low Temperature Flex	-	ASTM D1056 -55°C (-67°F)/5hrs	Pass	-
Low Temperature Brittleness	-	ASTM D746 -55°C (-67°F)/3min	Pass	-

Notes:

* Specification values in bold are tested on a batch basis.

**Typical value is based on historical data. Please note the frequency of testing varies.

***Specification applied to physical properties, which are based on Futureway internal benchmark.

****Additional industry specifications are also available. All other properties are based on industry standard guidelines.

Statement: The information contained in this data sheet is intended to assist you in the design of Futureway materials. It is not intended to and does not create any explicit or implicit guaranties, including any guaranty of marketability of the goods and for special purposes. It is also not guaranteed that users can achieve the results shown in the technical specifications of this material in specific applications. They will change with different application situations, such as equipment type, environmental conditions, process conditions, etc. Users should determine the suitability of Futureway materials for each application.

Statement of FDA compliance is based on the following: (i) RTL-B (white) silicone foams are produced under good manufacturing practice conditions; (ii) RTL-B (white) silicone foams have been conducted annual extraction tests in accordance with FDA Regulation 21 CFR 177.2600 (e) and (f) and found to meet all extract restrictions, both of which are necessary standards in 21 CFR177.2600 for rubber articles intended for repeated use in the area specified.

Standard Thickness Tolerances

Nominal Thickness	Tolerance
mm (inches)	mm (inches)
1.59 (0.063)	± 0.381 (± 0.015)
2.38 (0.094)	± 0.508 (± 0.020)
3.18 (0.125)	± 0.508 (± 0.020)
4.76 (0.188)	± 0.762 (± 0.030)
6.35 (0.250)	± 1.016 (± 0.040)
9.53 (0.375)	± 1.016 (± 0.040)
12.70 (0.500)	± 1.270 (± 0.050)
15.88 (0.625)	± 1.524 (± 0.060)
19.05 (0.750)	± 2.286 (± 0.090)
25.40 (1.000)	± 2.286 (± 0.090)

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.

Statement: The information contained in this data sheet is intended to assist you in the design of Futureway materials. It is not intended to and does not create any explicit or implicit guaranties, including any guaranty of marketability of the goods and for special purposes. It is also not guaranteed that users can achieve the results shown in the technical specifications of this material in specific applications. They will change with different application situations, such as equipment type, environmental conditions, process conditions, etc. Users should determine the suitability of Futureway materials for each application.