

# FUTUREWAY®RTL-D

## Medium Firm Silicone Foam

FUTUREWAY®RTL-D is a medium 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-D 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.

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 warranties, including any warranty 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
<b>Physical</b>				
Color	-	-	<b>Gray, Black</b>	-
Thickness	mm (inches)	-	<b>0.79-12.70</b> <b>(0.031-0.500)</b>	-
Density	kg/m <sup>3</sup> (lb./ft <sup>3</sup> )	ASTM D1056	350 (22)	<b>300-473</b> <b>(18.7-29.5)</b>
Compression Force Deflection	kPa (psi)	ASTM D1056	70 (10)	<b>41-97</b> <b>(6-14)</b>
Compression Set	%	ASTM D1056 100°C (212°F)/22hrs/50%	1	<b>&lt;10</b>
Water Absorption	%	Internal 50mm (2") below water surface/24hrs/change in weight	0.5	<b>&lt;5</b>
<b>Flammability</b>				
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
<b>Thermal</b>				
Temperature Range	°C (°F)	Internal	-55 to +200 (-67 to +392)	-
Thermal Conductivity	W/(m·K)	ASTM C518	0.07	-
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.

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**Standard Thickness Tolerances**

Nominal Thickness	Tolerance
mm (inches)	mm (inches)
0.79 (0.031)	+0.381/-0.102 (+0.015/-0.004)
1.59 (0.063)	± 0.508 (± 0.020)
2.38 (0.094)	± 0.508 (± 0.020)
3.18 (0.125)	± 0.635 (± 0.025)
4.76 (0.188)	± 0.635 (± 0.025)
6.35 (0.250)	±0.762 (± 0.030)
9.53 (0.375)	± 1.143 (± 0.045)
12.70 (0.500)	± 1.270 (± 0.050)

**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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