Product Data Sheet

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BISCO® MS-1600 Series Medical and Life Science Solid Silicone

BISCO® MS-1600 medical and life science grade solid silicone is a premium silicone intended for use in life science applications. The final product has been tested to meet USP Class 6 requirements, and FDA compliance.

Material is produced with a low volatile, peroxide free, platinum-cured raw material, which provides a non-toxic and chemically inert cured product.

PROPERTY	TEST METHOD	VALUES				
PHYSICAL						
Description		**MS1630**	**MS1640**	**MS1650**	**MS1660**	**MS1670**
Color	Visual	Translucent				
Surface Finish	Visual	Glossy Smooth				
Thickness, mm (inches)	Internal	0.254 - 12.7 (0.010 - 0.500)				
Width, mm (inches)		914 (36)				
Specific Gravity, g/cc	ASTM D297	1.12	1.14	1.15	1.17	1.21
Durometer, Shore A	ASTM D2240	30 ± 5	40 ± 5	50 ± 5	60 ± 6	70 ± 5
Tensile Strength, MPa (psi)	ASTM D412	5.52 (800)	6.89 (1000)	8.27 (1200)	8.27 (1200)	8.27 (1200)
Elongation, %	ASTM D412	725	700	600	600	600
Tear Resistance, Kn/m (ppi)	ASTM D624	21 (120)	24.5 (140)	26.3 (150)	26.3 (150)	26.3 (150)
Compression Set, %	ASTM D395 100°C (212°F) / 70 hrs / 25%	6.0	6.0	9.5	12.2	12.3
Temperature Range, C° (F°)	Internal	-62 to 232 (-80 to 450)				
Specifications		USP Class 6 / 21CFR177.2600†				

† Statement of FDA compliance is based solely on the following: MS1600 solid silicones (i) are compounded and cured under conditions of good manufacturing practice; and (ii) have been subjected to annual extraction testing in accordance with FDA Regulation 21 CFR 177.2600 paragraphs (e) and (f) and found to meet all extractives limitations, both of which are criteria set forth in 21CFR177.2600 as necessary for rubber articles intended for repeated use in those areas specified in the regulation.

1. Typical Value - Value is based on historical data, please note the frequency of testing varies. These are for information only and should not be used for specification development.
2. Standard material comes talc free for a cleaner product, to add adhesives or other substrates.

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Standard Thickness Tolerances

NOMINAL THICKNESS	TOLERANCE	STANDARD ROLL LENGTH
mm (inches)	mm (inches)	m (yard)
0.25 (0.010)	± 0.127 (± 0.005)	36.6 (40)
0.38 (0.015)	± 0.127 (± 0.005)	36.6 (40)
0.79 (0.031)	± 0.127 (± 0.005)	18.3 (20)
1.60 (0.063)	± 0.165 (± 0.007)	36.6 (40)
2.39 (0.094)	± 0.254 (± 0.010)	18.3 (20)
3.18 (0.125)	± 0.432 (± 0.017)	18.3 (20)
4.78 (0.188)	± 0.560 (± 0.022)	9.1 (10)
6.35 (0.250)	± 0.560 (± 0.022)	9.1 (10)
9.53 (0.375)	± 0.560 (± 0.022)	4.6 (5)
12.70 (0.500)	± 0.560 (± 0.022)	4.6 (5)

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 - 610 (> 12 - 24)	± 4.78 (± 0.188)
> 610 - 914 (> 24 - 36)	+ 25.4/- 0 (+ 1/- 0)

VALUE ADDED OFFERINGS

- Adhesive (PSA) lamination ≥ 0.031"- thick material only
- Slit material/tapes

- All metric conversions are approximate. Reference US customary units for official values and tolerances.
- Additional technical information is available.
- Values should not be used for specification limits.

For more information and to request a sample, please contact our team of experts at solutions@rogerscorp.com

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