

BISCO® HT-6240 Transparent Solid Silicone

BISCO® HT-6240 transparent solid silicone is a part of the performance grade series designed to handle the most demanding gasketing applications. Its unique high clarity solves aesthetic concerns within various industrial and handheld device markets. Beyond the transparency feature, the material shares similar properties to its softer counterparts, including high tear strength and extremely tight thickness tolerances.

Features & Benefits:

- Product transparency improves application aesthetics
- High tear strength and extremely tight thickness tolerances for gasket integrity
- Resistance to UV, ozone, extreme temperatures, and most fluids for consistent performance across many environments
- Rated to most stringent UL flame standards

PROPERTY	TEST METHOD	TYPICAL VALUE*	SPECIFICATION**
PHYSICAL			
Color	Visual	Transparent	---
Thickness, mm (inches)	Internal	0.250 - 3.18 (0.010 - 0.125)	---
Specific Gravity, (g/cc)	Internal	1.07	---
Durometer, Shore A	ASTM D2240	41	40 ± 5
Compression Set, %	ASTM D395 150°C (302°F) / 70 hrs / 25%	< 35	---
Tensile Strength, MPa (psi)	ASTM D412	7.17 (1040)	> 4.8 (> 700)
Elongation, %	ASTM D412	325	> 200
Tear Resistance, ppi	ASTM D624	112	> 70

Specification values in bold are tested on a batch basis.

Further industry specifications tested in tables below.

PROPERTY	TEST METHOD	TYPICAL VALUE*	SPECIFICATION**
ELECTRIC			
Dielectric Strength, Volts/mil	ASTM D149	386	---
Dielectric Constant, 1 kHz	ASTM D150	2.76	---
Dissipation Factor, 1 kHz	ASTM D495	0.003	---
Dry Arc Resistance, Seconds	ASTM D495	124	---
Volume Resistivity, Ohm-cm	ASTM D257	10 ¹⁴	---

PROPERTY	TEST METHOD	TYPICAL VALUE*	SPECIFICATION**
THERMAL			
Temperature Range, °C (°F)	Internal	-55 to +200 (-67 to +392)	---
Thermal Conductivity, W/m °K	ASTM D518	0.21	---
Low Temperature Brittleness	ASTM D2137 -62°C (-80°F) / 3 min	Pass	---

Standard Thickness Tolerances

NOMINAL THICKNESS	TOLERANCE
mm (inches)	mm (inches)
0.254 (0.010)	± 0.051 (± 0.002)
0.508 (0.020)	+ 0.076/- 0.051 (+ 0.003/- 0.002)
0.787 (0.031)	± 0.102 (± 0.004)
1.600 (0.063)	± 0.152 (± 0.006)
3.175 (0.125)	± 0.203 (± 0.008)

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)

Liner

Material is shipped between one or two clear PET carriers for easy handling based on product thickness. Liner must be removed prior to die cutting to allow the material to shrink and relax.

THICKNESS	CONSTRUCTION
mm (inches)	Liner type
≤ 0.787 (0.031)	PET Liner Two Sides
> 0.787 (0.031)	PET Liner One Side

VALUE ADDED OFFERINGS

- Adhesive (PSA) lamination on ≥ 0.787mm (0.031")
- Slit material/tapes

Notes:

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

**Specification- Applies to physical properties only, which are based on Rogers' internal benchmark and standard BISCO specification values. Additional industry specifications are available as well. All other properties are based on industry standard guidelines.