Product Data Sheet

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BISCO® HT-6220 Soft Solid Silicone

BISCO® HT-6220 soft solid silicone is a part of the performance-grade series designed to handle the most demanding gasketing applications. This material bridges the gap between foams and high durometer solids. Low Shore A durometer, high tear strength, and extremely tight thickness tolerances achieve superior sealing where high performance is required.

Features & Benefits:

- Softness enables a highly protective seal that requires less closure force
- Low shore A durometer, 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

PROPERTY	TEST METHOD	TYPICAL VALUE*	SPECIFICATION**
PHYSICAL			
Color	Visual	Black	---
Thickness, mm (inches)	Internal	**0.250 - 3.18 (0.010 - 0.125)**	---
Specific Gravity, (g/cc)	Internal	1.08	---
Durometer, Shore A	ASTM D2240	20	**22 ± 5**
Compression Set, %	ASTM D395 150°C (302°F) / 70 hrs / 25%	< 25	---
Tensile Strength, MPa (psi)	ASTM D412	4.4 (640)	**> 3.45 (> 500)**
Elongation, %	ASTM D412	580	**> 400**
Tear Resistance, ppi	ASTM D624	116	**> 40**

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	374	---
Dielectric Constant, 1 kHz	ASTM D150	2.97	---
Dissipation Factor, 1 kHz	ASTM D495	0.003	---
Dry Arc Resistance, Seconds	ASTM D495	123	---
Volume Resistivity, Ohm-cm	ASTM D257	10^14	---

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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	0.22	---
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)

Width Tolerances

NOMINAL WIDTH	TOLERANCE
mm (inches)	mm (inches)
> 660 - 914 (> 26 - 36)	+ 25.4/- 0 (+ 1/- 0)

Liner

Material is shipped between one or two polycarbonate 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)	Polycarbonate Liner Two Sides
>0.787 (0.031)	Polycarbonate Liner One Side

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.
All metric conversions are approximate. Reference US customary units for official values and tolerances.