

The O-Ring Store LLC



We make getting o-rings easy!

SILICONE 50 DUROMETER

DATA SHEET FOR COMPOUND S50-CORD

Compound Features:

- Odorless and non-toxic.
- Made with FDA compliant ingredients*.
- Broad temperature range -80°F to +400°F (-62°C to +204°C).
- Excellent dry heat resistance.
- Excellent resistance to sun/UV light, ozone, and weathering.
- Excellent compression set resistance.
- Excellent permeation resistance.

Compound Limitations:

- Limited to static sealing applications.
- Not recommended for use with ketones (MEK), acids, silicone oils, and brake fluids.
- Poor wear and abrasion resistance.
- Easily cut or sliced on sharp machined edges.
- Poor short term resilience.

ASTM Callout:

ASTM D2000-99 Grade M4GE505 A19 B37 EO16 EO36 F19 ZZ-R-765 CLASS 2A & 2B GRADE 50

*All materials used in the manufacture of this material are on the FDA white list. The Finished product itself is not FDA approved.

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ORIGINAL PROPERTIES					
Properties	ASTM Designation	Test Method	Unit of Measure	ASTM D2000 Specification	S50-CORD Compound Property
Durometer	-	-	Shore A	50± 5	49
Tensile Strength			PSI	725	945
Elongation Resistance			%	250 Min.	405

HEAT RESISTANCE					
Properties	ASTM Designation	Test Method	Unit of Measure	ASTM D2000 Specification	S50-CORD Compound Property
Durometer Change	A19	D573 70 Hours @ 225°C	Shore A	+10 Max	+3
Tensile Strength Change			%	-30 Max	+5
Elongation Resistance Change			%	-30 Max	-20

COMPRESSION SET					
Properties	ASTM Designation	Test Method	Unit of Measure	ASTM D2000 Specification	S50-CORD Compound Property
Original Deflection	B37	D395 22 Hours @ 100°C	%	50 Max	28

FLUID RESISTANCE					
Properties	ASTM Designation	Test Method	Unit of Measure	ASTM D2000 Specification	S50-CORD Compound Property
Durometer Change	EA14	70 Hours @ 100°C	Shore A	0 to -15	-7
Tensile Strength Change			%	-20	-12
Elongation Change			%	-20	+3
Volume Change			%	0 to +15	+11

LOW TEMPERATURE RESISTANCE					
Properties	ASTM Designation	Test Method	Unit of Measure	ASTM D2000 Specification	S50-CORD Compound Property
Brittle Point	F19	D2137 3Min @ -55°C	°C	Non-Brittle	Pass

Information within is believed to be accurate and reliable. However, The O-Ring Store, LLC makes no warranty, expressed or implied, that parts supplied in this material will perform satisfactorily in specific applications. It's the customer's responsibility to evaluate the material prior to use.

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