

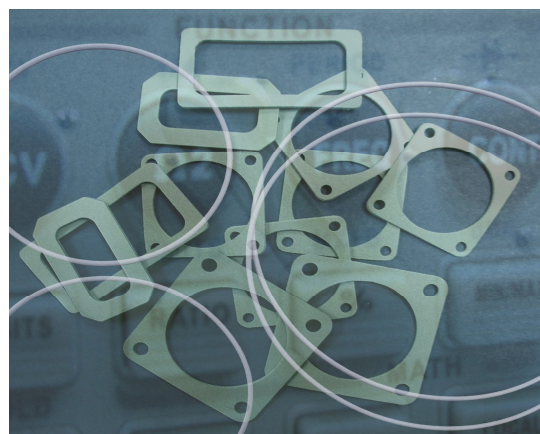
# e-Sil 500 Series

## Conductive Silver-Aluminum Silicone

### e-Sil 500

**e-Sil 500** is a silicone elastomer filled with silver plated aluminum particles exhibiting high electrical conductivity, providing highly effective shielding and offering excellent moisture sealing. **e-Sil 500** has physical properties which by far exceeds the requirements of **MIL-G-83528/ Type B**. The combination of these properties together with enhanced electrical conductivity, low compression set and generally good resistance to aging provides better performance in existing uses and gives endless freedom in designing new complicated three dimensional shapes.

- Excellent tensile and tear strength – nearly twice that required by MIL-G-83528.
- Silver/Aluminum filler minimizes the risk for galvanic corrosion.
- Effective over a wide range of temperatures.
- Good sealing under moderate closing force.
- Superior tensile strength enables molding complicated geometry and delicate parts.
- Excellent compression set to maintain sealing force over very long period of time .
- Chemical resistance for process cleaning agents.
- Available in sheets in every thickness and custom die-cut parts.
- Available also as custom molded to any shape.



Physical Properties	Typical Value	Test Method
Elastomer binder	Silicone	
Conductive filler	Silver-plated aluminum particles	
Color	Beige	
Operational Temperature, °C	(-60) to (+160)	
Hardness, Shore A	70	ASTM D-2240
Tensile Strength, psi (Mpa)	400 (2.75)	ASTM D-412
Elongation, %	300	ASTM D-412
Tear Strength lb/in (kN/m)	40 (7.0)	ASTM D-624
Specific Gravity, gr/cm <sup>3</sup>	2.0	ASTM D-792
Compression Set, 70hr @ 100°C	25%	ASTM D-395
Volume Resistivity, Ω-cm	0.004	Mil-DTL-83528
Shielding Effectiveness		
H-Field, 100 kHz, db	60	
E-Field, 10 MHz-10GHz, db	100	