



ALVAS Rubber Products Ltd.

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e-Sil 600 Series Conductive Silver-Aluminum Fluorosilicone Elastomer

e-Sil 600 is a fluorosilicone elastomer filled with silver plated aluminum particles exhibiting high electrical conductivity, providing highly effective shielding and offering excellent moisture sealing.
e-Sil 600 is used for parts which will be exposed to severe operating conditions including diverse fuels including jet fuels, oils and extreme temperatures.

e-Sil 600 has physical properties which by far exceeds the requirements of **MIL-G-83528/ Type D**. The combination of these properties together with enhanced electrical conductivity, low compression set and good resistance to aging provides better performance in existing uses and gives endless freedom in designing new complicated three dimensional shapes.

- Excellent for Aerospace applications requiring fuel and oil resistance.
- Excellent tensile and tear strength.
- Effective over a very wide range of temperatures.
- Good sealing under moderate closing force.
- Silver/Aluminum filler minimizes the risk for galvanic corrosion.
- 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 | Fluorosilicone | |
| Conductive filler | Silver-plated aluminum particles | |
| Color | Beige | |
| Operational Temperature, °C | (-60) to (+180) | |
| Hardness, Shore A | 70 | ASTM D-2240 |
| Tensile Strength, psi (Mpa) | 260 (1.80) | ASTM D-412 |
| Elongation, % | 85 | ASTM D-412 |
| Tear Strength lb/in (kN/m) | 38 (6.7) | ASTM D-624 |
| Specific Gravity, gr/cm ³ | 2.15 | ASTM D-792 |
| Compression Set, 70hr @ 100°C | 28% | ASTM D-395 |
| Volume Resistivity, Ω-cm | 0.010 | Mil-DTL-83528 |
| Shielding Effectiveness | | |
| H-Field, 100 kHz, db | 60 | |
| E-Field, 10 MHz-10GHz, db | 100 | |

Publisher-PDS-e-Sil 600 -05/10

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