

### **ELECTROSEAL™ ECE152**

## **Electrically Conductive Elastomer**

#### LAIRD™ ELECTROSEAL™ ECE152

The ELECTROSEAL<sup>™</sup> ECE152 Electrically Conductive Elastomer from Laird Performance Materials is a nickel graphite filled silicone elastomer. It has excellent EMI shielding at temperature extremes, ozone and pressure resistant, and has a long shelf life. This material is designed for molded and extruded EMI gaskets, or can be formed into sheets.

#### **FEATURES AND BENEFITS**

- Black color
- Available for both molding and extrusion
- UL94V0 equivalent
- RoHS compliant and halogen free per IEC-61249-2-21 standard

#### **MARKETS**

- Telecom
- Datacom
- Industrial
- Automotive

#### **CHARACTERISTICS**

| Item                              | Unit                 | Typical Value[^1] | <b>Test Method</b>            |
|-----------------------------------|----------------------|-------------------|-------------------------------|
| Base elastomer                    |                      | Silicone          | -                             |
| Conductive filler                 |                      | Nickel graphite   | -                             |
| Color                             | -                    | Black             | Visual inspection             |
| Density                           | g/cm3                | 2.2               | ASTM D792                     |
| Hardness, Shore A <sup>[^2]</sup> | -                    | 62                | ASTM D2240                    |
| Volume resistivity                | Ohm-cm               | 0.06              | MIL-DTL-83528E<br>Para 4.5.10 |
| Tensile strength                  | MPa                  | 1.2               | ASTM D412                     |
| Elongation                        | %                    | 136               | ASTM D412                     |
| Tear strength                     | N/mm                 | 10.9              | ASTM D624<br>(die C)          |
| Compression set                   | %                    | 30                | ASTM D395(B)<br>72hrs@100°ℂ   |
| Outgassing, TML                   | %                    | 0.1               |                               |
| Outgassing, CVCM                  | %                    | 0.02              |                               |
| Shielding Eff <sup>[^3]</sup>     | dB                   | 100               | MIL-DTL-83528E<br>para 4.5.12 |
| Operation temp.                   | $^{\circ}\mathbb{C}$ | -40 to 155        | -                             |
| Flammability <sup>[^4</sup> ]     | -                    | V0 equivalent     | UL94                          |

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- ^1: Typical values above are based on standard test methods.
- ^2: Typical hardness value; this will be varied with part size and processing process.
- ^3: Follow the standard of MIL-DTL-83528E PARA 4.5.12, average SE @10GHz.
- ^4: Flame test is conducted on samples with 1.5 mm aluminum plates on both sides.

#### SHELF LIFE

12months at 23°€ /60%R.H.

#### EM-ENSL-DS-ECE152\_0322