



MATERIAL DATA SHEET

MATERIAL REFERENCE: 1J/8 (EDM 254)

T C Shielding material reference 1J/8 is an extrusion grade of conductive silicone elastomer with Nickel/ Graphite conductive filler. The material is grey in colour and has been developed to meet UL94V0 / V1 non flam requirements.

The material is specially compounded to offer excellent physical and electrical properties over an effective temperature range of -50 to + 160°C and is based on fully reacted silicone polymer chemistry. Silicone offers excellent performance over a wide temperature range with good resistance to chemicals and weathering.

Its resistance to mineral based fluids is limited, but it has good splash contact resistance to most mineral oils and greases.

Meets V1/V0 indicative UL94/IEC 60695-11-10 flammability for sections 0.4 – 4.78 thickness.

A technical construction file of testing is held @ TC Shielding following UL Labs official testing.

Sections <0.41 V0 Rating

Sections >0.41 to 3.22 V1 Rating

Physical Properties:

Test methods

Typical values:

| | | |
|-------------------------------------|-------------|----------|
| Hardness (IRHD) | ASTM D-2240 | 75 ± 5 |
| Specific gravity (g/cc) | ASTM D-792 | 2.30 |
| Tensile strength (MPa) | ASTM D-412 | 1.40 min |
| Elongation % | ASTM D-412 | 125 min |
| Compression set % 72 hrs @ 100°C | ASTM D-395 | 30 max |

Electrical properties:

| | | |
|-----------------------------|-------------|---|
| Volume resistivity (Ohm/cm) | Mil-G-83528 | 0.05/0.1 max (depending on material thickness) |
|-----------------------------|-------------|---|

Shielding effectiveness (Mil-G-83528)dB:

(Mil std 285 procedure)

| | |
|--------|----|
| 200KH | 70 |
| 100MHz | 95 |
| 500MHz | 90 |
| 2GHz | 90 |
| 10GHz | 90 |

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