

## ECCOSHIELD® VX

Conductive Compound for Caulking

### Material Characteristics

- ECCOSHIELD® VX is a single-component conductive paste material formulated with a high concentration of silver-plated copper particles in a hydrocarbon resin
- When properly applied to the seams of an enclosure or to the threads of conduit, it is possible to achieve insertion losses in excess of 100 dB from 200 kHz through 10 GHz
- ECCOSHIELD® VX as a thread compound is in accordance with the following MIL Standards: MIL-A-18123 (ships), MIL-E-4957A (ASG), and MIL-STD-285 on 6 inch (15 cm) diameter electric conduit
- ECCOSHIELD® VX will not harden in time; is completely non-reactive, and there is no corrosion problems

### Applications

- ECCOSHIELD® VX is specifically designed as an effective caulking and sealing compound used to assure the RF integrity of structures
- When used as a pipe-thread compound in conduit, ECCOSHIELD® VX assures a completely water-tight, air tight, and RF-tight joint
- When ECCOSHIELD® VX is applied as a coating it will actually protect certain surfaces

### Shipping & Availability

- ECCOSHIELD® VX is sold by the pound in one pound (9 oz.) glass jars
- ECCOSHIELD® VX does ship as a hazardous material: Class 3 Flammable, UN1866, PG II

### Instructions for Use

- ECCOSHIELD® VX is a simple conductive sealer to use. No mixing or components are required
- To assure uniformity, mix ECCOSHIELD® VX in the container which it was received
- Clean the surfaces or threads to which it will be applied to using a wire brush
- Apply sufficient material so that a small amount is squeezed out. The excess can be returned to the container and reused
- To caulk an already assembled joint, run a bead along the joint and force the material into the seam with a spatula or putty knife
- For cleanup, any commonly used solvent such as toluene or MEK can be used

### Typical Properties

Appearance	Silver-black
Service Temperature, °F (°C)	-80 to 250 (-62 to 121)
Volume Resistivity, ohm-cm	<0.05
Length of adequate seam bead/pound	27 ft (8.2 m)
Thermal Conductivity, (BTU-in/hr/ft <sup>2</sup> /°F) (cal-cm/sec/cm <sup>2</sup> /°C)	~ 30 ~0.01
Shelf Life	6 months

### Conduit Shielding

	Bare Threads	Threaded with VX compound	Welded
200 kHz (magnetic)	35	>110	>110
1 MHz (magnetic)	46	>130	>130
1 MHz (electric)	>110	>110	>130
10 MHz (magnetic)	54	>120	>130
10 MHz (electric)	>110	>120	>130
450 MHz		>110	110
1000 MHz	60	100	95

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