

ECCOSHIELD® VY

General Purpose RF Conductive Caulking Compound and Sealer

Material Characteristics

- ECCOSHIELD® VY is a single-component, electrically conductive, non-hardening compound of metallic particles
- When properly applied, ECCOSHIELD® VY will exhibit a dramatic improvement in virtually any RFI situation. It assures long-term integrity of the shielding enclosure and will prevent corrosion in the contact area
- ECCOSHIELD® VY is effective over the entire useful radio and microwave frequency range for magnetic fields, electric fields, and plane waves
- Due to high tack and non-hardening characteristics, ECCOSHIELD® VY will function under vibration and displacement due to temperature changes
- ECCOSHIELD® VY is fast and economical to use

Applications

- ECCOSHIELD® VY is specifically designed for use on radio frequency shielded structures, cabinets, conduits, seams, threads, and other components to ensure containment or exclusion of RF energy
- Sealing the seams of equipment cabinets by forcing ECCOSHIELD® VY into the seams. Vibration or handling will not affect the material since it remains in a plastic state
- Corrugated sheet metal buildings are made tight (RF and weather seal) by caulking with ECCOSHIELD® VY
- Removable cover plates are readily gasketed by an application of ECCOSHIELD® VY prior to bolting. They can easily be removed from time to time since ECCOSHIELD® VY does not harden
- Conduit threaded joints are made RF tight by the application of a small amount of ECCOSHIELD® VY to the threads prior to tightening. The conduit fittings can be unthreaded easily

Shipping & Availability

- ECCOSHIELD® VY is sold by the pound and packaged in small (4 oz.) glass jars
- ECCOSHIELD® VY ships as a hazardous material: Class 3 Flammable, UN1866, PG II
- Upon special request ECCOSHIELD® VY can be supplied in a small plastic syringe for extruding small diameter beads

Typical Properties

Service Temperature, °F (°C)	-40 to 550 (-40 to 288)
Density	4.9 g/cc
Volume Resistivity	0.001 ohm-cm
Typical Insertion Loss at Caulked Joint	>100 dB
Length of 1/8" (0.32 cm) dia. bead/lb	50 ft. (15 m)
Shelf Life	6 months

Instructions for Use

- For best results, the material should be applied at room temperature (minimum 68°F, 20°C).
- ECCOSHIELD® VY can be used with conventional caulking equipment to develop fast and uniform-weight beads. ECCOSHIELD® VY can also be applied by spatula, putty knife, plastic syringe applicators, or other suitable tools such as caulking guns. For spatula application, small amount of methyl ethyl ketone (MEK) can be added to adjust consistency
- All surfaces for application should be prepared by removing rust, scale, non-conductive oxides and dirt. Wire brushing and/or solvent cleaning is usually adequate. Surfaces should be bright and electrically conductive
- Apply ECCOSHIELD® VY to the prepared surface using a syringe, caulking gun, or spatula. Lap joints may be made immediately. Excess and spillage may be collected and reused
- Hardened or thick material can be reactivated by the addition of small amounts of methyl ketone
- For cleanup, acetone or trichloroethylene are suitable
- **Caution:** ECCOSHIELD® VY contains flammable solvents. Keep away from heat and open flames. When not in use, keep sealed to avoid evaporation. The handling of these products should present no problems if ordinary care is exercised to avoid breathing vapors, the skin is protected against contamination, swallowing is avoided, and eyes are protected