# Qualifying the Optimal EMI / RFI Shielding Elastomer

More challenging and sophisticated applications are driving the demand of electrically conductive materials. The process of qualifying or specifying the optimal electrically conductive materials can be difficult. This guide was developed to assist you in determining the correct conductive silicone material for your application.

## Initial Qualification Questions

1. What is the max ohms/cm value of volume resistivity (V.R.) you need to achieve?
2. What is the max ohms/cm value of surface resistivity you need to achieve?
3. What environment will this material be exposed to? Does this need to be solvent or fuel resistant (Fluorosilcione)?
4. Does this material need to meet or be built to the MIL-DTL-83528C QPL specification? If yes what type or call out? (the specs range from type A to type M each associated with a different filler or silicone type)
5. Are you looking for a semi conductive/static dissipating material or is this a true EMI/RFI shielding application?
6. Is this a new application or a current one using a similar material you are trying to replace? If yes do you have a part number or data sheet of the material in use currently? If you are trying to replace an existing product, see SSP's EMI/RFI Materials Selector Guide.

## How Filler Type is Associated with Cost and Conductivity?

| FILLER TYPE | COST | CONDUCTIVITY | TYPICAL V.R. VALUE (OHMS/CM) |
|---|---|---|---|
| Silver | $$$$$ | Extremely conductive | .0009 |
| Silver Plated Aluminum | $$$$ | Super Conductive | .003 |
| Silver Plated Copper | $$$$ | Super Conductive | .001 |
| Silver Plated Glass | $$$ | Very Conductive | .006 |
| Nickel Plated Graphite | $$ | Conductive | .01 |
| Carbon Black | $ | Semi-Conductive | 8.0 |

**For more questions or ordering information please visit our web-site at www.sspinc.com or contact a sales representative directly at 1(800)-437-1442.**

**Specialty Silicone Products, Inc.**
Corporate Technology Park * 3 McCrea Hill Road * Ballston Spa, NY 12020

**Specialty Silicone Products, Inc is an ISO 9001:2008 registered company.**