

Product Data Sheet

OpteSTAT™ NC PPS 7010 Nanotechnology-based Conducting Compounds

OpteSTAT™ master batches are Ovation Polymers' line of nano-compounds based on carbon nanotubes. Our proprietary dispersion technology debundles and disentangles carbon nanotubes without compromising their integrity. **OpteSTAT™** compounds exhibit good conductivity at minimal nanotube loadings, achieving exceptional cleanliness and physical property retention.

OpteSTAT™ NC PPS 7010 is a Polyphenylenesulfide-based carbon nanotube compound. The material resistivity can be tailored to the application, while retaining the physical and thermal properties of the base polymer.

Target applications include components of disk drives, business machines or other electronic assemblies where ESD control is required while retaining exceptional cleanliness, dimensional control and physical properties.

| Properties* | Standard | Unit | Typical Value |
|------------------------------------------|----------|-----------|---------------|
| Physical | | | |
| Specific Gravity | D 792 | - | 1.35 |
| Mechanical | | | |
| Tensile Stress @ yield, 50 mm/min | D 638 | MPa. | 70 |
| Tensile Modulus, 50 mm/min | D 638 | MPa. | 2500 |
| Flexural Modulus, 1.3 mm/min, 50 mm span | D 790 | MPa. | 3300 |
| Izod Impact, notched @ 23°C | D 256 | ft-lb/in. | 0.55 |
| Thermal | | | |
| HDT @ 264 psi, 3.2 mm, unannealed | D 648 | °C | 93 |
| Electrical | | | |
| Surface Resistivity | D 257 | Ohms/sq. | 1E4 - 1E6 |

*All properties are measured after 48 hours of conditioning at 23°C and 50% relative humidity. All samples are prepared according to ASTM standards. Variations within normal tolerances are possible for various types of colors and functional properties like UV resistance.

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