



PERMASTAT® & PERMASTAT PLUS® COMPOUNDS

CONDUCTIVE PRODUCTS

FEATURES

- Surface resistance range from 10^7 – 10^{10} ohms
- Carbon particle free (Non-sloughing)
- Fully colorable
- Inherently dissipative polymer (IDP) technology - All polymeric

BENEFITS

- Permanent ESD performance
- Ideal for dust-free and sensitive environments
- Not humidity dependent - works in every climate



Patients with inhalers depend on the drug flow path. Our PermaStat® compounds for drug delivery neutralize the effects of static to better ensure consistent delivery of full dosages.

PermaStat® and PermaStat PLUS® are registered trademarks of RTP Company.

PERMASTAT® COMPOUNDS

PermaStat® compounds from RTP Company permanently protect sensitive electronics from the damaging effects of static electricity. These compounds feature a consistent surface resistivity of 10^{10} to 10^{11} ohms/square and are free of carbon black, so they do not crayon or “slough.” Each PermaStat® compound also meets MIL-PRF-81705D static decay specifications.

PermaStat® compounds provide important anti-static performance for applications requiring dust-free and static-free environments, such as cleanrooms for the manufacturing of medical products or electronic devices. PermaStat® compounds also meet particulation requirements better than carbon filled materials. Likewise, these compounds do not contain corrosive agents that out-gas and collect on metal components. These features allow elimination of pre-cleaning steps, reducing manufacturing costs especially in electronic assembly environments.

PermaStat® compounds offer significant benefits over fragile, post-applied surfactant coatings. Through the compounding process, anti-static performance becomes inherent in the molded material, thus eliminating costly, time-consuming, secondary operations required for coatings. And, in contrast to hygroscopic surfactant coatings, PermaStat® compounds have the ability to function independent of relative humidity. This allows these compounds to perform in applications in all climates and where other anti-static agents may be removed due to material movement, cleaning agents, or evaporation.

PERMASTAT PLUS® COMPOUNDS

PermaStat PLUS® thermoplastic compounds from RTP Company process similar to our PermaStat® compounds but provide enhanced static protection in the optimal ESD range of 10^7 to 10^8 ohms. These compounds are also non-sloughing, perform in all levels of humidity, are completely customizable to meet the needs of your application, and are safe for use in and with sensitive environments, electronics, medical, pharmaceuticals, foodstuffs, and hazardous materials processing.

As with our standard PermaStat® line, PermaStat PLUS® compounds offer significant benefits over traditional surface coatings. Due to the dissipative performance of these compounds, which is inherent and polymeric, permanency is achieved without the use of coating technologies. Similar to our PermaStat® materials, PermaStat PLUS® compounds also perform their dissipative functions even after recycling.

CUSTOMIZATION CAPABILITIES

Available in polyolefin, POM, PMMA, ABS, PC, PBT, PC/ABS, PC/PBT, PC/PMMA, nylons, and elastomers (including SEBS, olefin-based and over-molding grades), PermaStat® and PermaStat PLUS® compounds can be customized with other engineering technologies such as color, wear resistance, structural reinforcement, and flame retardancy. Many of these compounds also have UL 94 V-0 flammability recognition.



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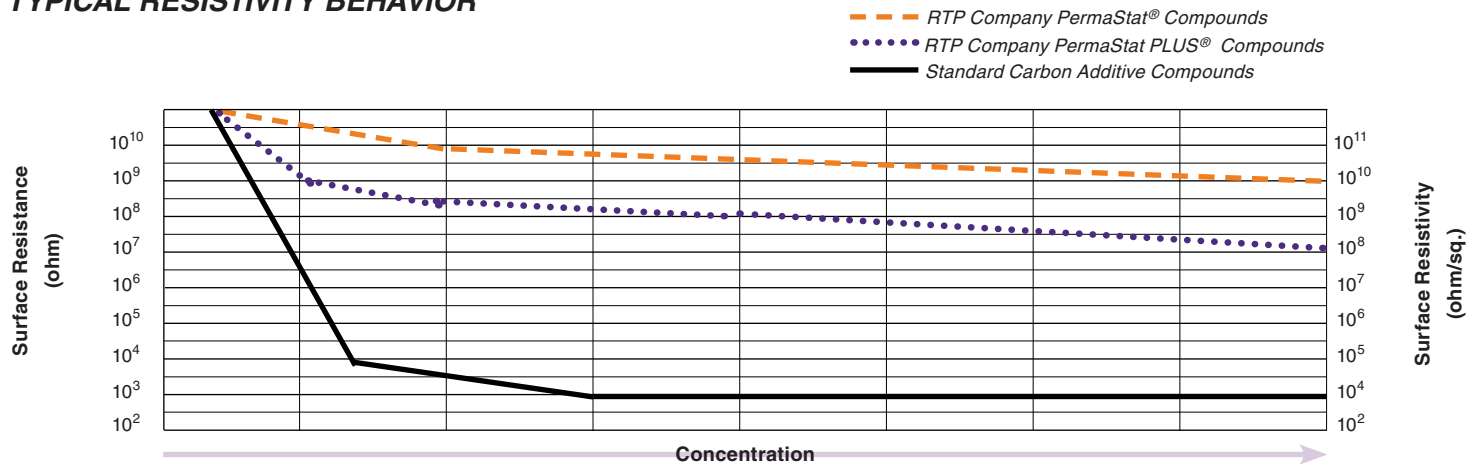
PERMASTAT® & PERMASTAT PLUS® COMPOUNDS

DATA COMPARISON

Product	Surface Resistance (ohms)	Surface Resistivity (ohms/sq)	Static Decay (12% RH)	Mech.Performance vs. PermaStat®	Permanency	Benefits
PermaStat®	10 ⁹ - 10 ¹⁰	10 ¹⁰ - 10 ¹¹	< 2.0 sec	--	Yes	Permanence
PermaStat PLUS®	10 ⁷ - 10 ⁸	10 ⁸ - 10 ⁹	< 0.5 sec	Unchanged	Yes	Improved electrical performance*
Migratory Surfactant	10 ¹⁰ - 10 ¹²	10 ¹¹ - 10 ¹³	25.0+ sec	Similar	No	Low cost

*Performance relative to PermaStat®

TYPICAL RESISTIVITY BEHAVIOR



TYPICAL APPLICATIONS

Calculators	Food & beverage equipment	Printers/paper tractors
Chip carriers/matrix trays	Gears, rollers, and bushings	Medical equipment
Computers & business machines	Household appliances	Communications components
Fan blades	Material handling equipment	Vacuum filter cartridge housing
Film processing equipment	Point of sale terminals	Electronic cases

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RTP COMPANY: YOUR GLOBAL COMPOUNDER OF CUSTOM ENGINEERED THERMOPLASTICS

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