PRODUCT BULLETIN

Colorant Chromatics™ Semi-Conductive and Electrostatically Dissipative Perfluoroalkoxy (PFA) Formulations

Avient's Semi-Conductive and Electrostatically Dissipative (ESD)Perfluoroaloxy (PFA) Formulations combine consistent electrical conductivity, excellent chemical resistance, and reliable high-temperature performance in one material. This unique combination makes this solution well-suited for demanding applications across industries such as wire and cable, electronics, fluid handling, and Atmosphères Explosives (ATEX) environments. With consistent properties and the option for custom formulations, our conductive PFA has been developed to help you meet your toughest technical and regulatory requirements.

KEY CHARACTERISTICS

- **Consistent Electrical Conductivity:** Provides reliable performance in applications requiring specific electrical properties
- **Exceptional Chemical Resistance:** Resists a broad range of chemicals, including acids, bases, and solvents
- **High-Temperature Performance:** Useful for continuous service up to 260°C (500°F)
- **Enhanced Stress Crack Resistance:** Provides durability and reliability in harsh environments
- **Durable Flexibility:** Maintains long-lasting performance and flexibility over extended periods and under various conditions

BENEFITS OF CONDUCTIVE FORMULATIONS

- **Reliable Electrical Performance:** Custom formulations allow for precise control over electrical conductivity, providing consistent performance
- **Chemical Stability:** High resistance to chemicals reduces the risk of degradation and extends the lifespan of your technology
- **Temperature Resilience:** High-temperature capabilities respond well to demanding applications where other materials may fail
- **Durability:** High-stress cracking resistance can contribute to the overall durability and reliability of your products
- **Flexibility:** Durable flexibility enables your products to maintain their performance over time, even in challenging conditions

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TYPICAL APPLICATIONS

- **Fluid Handling:** Ideal for pipe, valve, and fitting linings in aggressive chemical processes and ATEX areas
- **Wire and Cable:** Engineered for self-regulating heating cables in high-temperature and chemically resistant environments
- **Electronics:** Useful for parts and connectors that require specific electrical conductivity
- **Static Dissipation:** Suited to moving parts generating static electricity, such as gears, and antistatic mats.

AVAILABLE SOLUTIONS

- **Semi-Conductive and Electrostatically Dissipative Perfluoroalkoxy (PFA) Formulations:** Offers reliable stress crack resistance, and durable flexibility
  - Low flow, medium flow, and high flow grades available, suitable for different processes such as extrusion, resin transfer molding (RTM)
- **Semi-Conductive Ethylene Tetrafluoroethylene (ETFE) and Fluorinated Ethylene Propylene (FEP):** Provide similar benefits for lower temperature environment applications (up to 200°C [392°F] with FEP) or high-temperature and harsh environment applications
- **Semi-Conductive Polyvinylidene Fluoride (PVDF):** Another robust option for industries requiring high chemical resistance and temperature performance

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