H-4417 Carbon Nanotube Conductive Paste

Specially Designed for Black Gloves

Features & Applications

H-4417 Carbon Nanotube Dispersion is a conductive formulation specifically developed for glove applications. As a carbon nanotube–based concentrate, it is designed for **latex and nitrile resin systems** and is primarily used in the production of **industrial safety gloves, latex gloves, and nitrile gloves**, with particular suitability for **black glove formulations**.

This product provides excellent electrical conductivity for glove applications while requiring **very low addition levels**, thereby minimizing the impact on the rheological behavior and mechanical properties of the base matrix. H-4417 effectively preserves the original mechanical performance of gloves and achieves an optimal balance between **conductive functionality and the fundamental properties of the finished product**.

Performance Specifications

Property	Test Method	Value
Appearance	Visual inspection	Black
Carbon Nanotube Content	120 °C oven drying	10 ± 0.5%
Viscosity	Rotational viscometer	9000 ± 1000 cps
Film Surface Resistance	No. 3 wire rod coating on PET substrate, dried, four-point probe measurement	200 ± 50 Ω/sq

Product Advantages

- Addition level of 5%–25% enables excellent antistatic performance in latex and nitrile resin systems
- Provides permanent and uniform electrical conductivity without the formation of localized “hot spots”

Typical Addition Levels

The typical dosage of H-4417 ranges from **5% to 25%**. Depending on the polymer characteristics and processing conditions, the effective loading range for **antistatic or static-dissipative applications** can be adjusted to **3–20 wt%**.

The exact conductivity level depends on the targeted performance requirements, resin properties, processing conditions, and the presence of other formulation components.

H-4417 should be blended with latex or nitrile resin using a **top-mounted agitator**, ensuring proper dilution of the concentrate into the resin system.

Storage & Transportation

- Recommended storage temperature: 5 °C to 60 °C
- When stored according to the recommended conditions, the product has a shelf life of up to 8 months