

Antistatic Agent Masterbatch

Introduction

Antistatic agent masterbatch is used for treatment of materials or their surfaces in order to reduce or eliminate buildup of static electricity.

Antistatic agent makes the surface or the material itself slightly conductive, either by being conductive itself, or by absorbing moisture from the air preventing the formation of static charges and hindering the fixation of dust.

Product Benefits

- Reduce electrostatic buildup or improve the conductivity
- Prevent dust and other pollutant attraction
- Very effective dispersion on films or molded articles
- Lower the surface resistivity to 10^{11} from 10^{14} ohms

Antistatic Agent

Antistatic agents are added to polymers/plastic articles during processing in order to minimize the natural tendency of most plastics to accumulate static charge.

In general, these additives work by migrating to the surface of the polymer and attracting water molecules from the atmosphere. The water lowers the surface resistivity from the value of $10^{14} \sim 10^{15}$ ohms for most polymers to $10^8 \sim 10^{11}$ ohms.

Applications

- Biaxially Oriented PP film
- Polypropylene Casting and Blown films

Composition

- Additive: Long-term and short-term antistatic agent
- Carrier Resins: Polypropylene homo-polymer or random copolymer, terpolymer

Recommended Dosage Rate

- Up to 5 wt%

Because processability and quality of applications are depended on processing conditions (temperature, pressure, speed, etc.) and applied resins, the optimum dosage rate must be determined by pre-test.