Defend Rx Antimicrobial Masterbatches

Product Description

These products contain a fine particle size, silver based antimicrobial powder dispersed in thermoplastic carriers. The masterbatch pellets are designed to be let down at 4wt.% LDR into various resins to impart antimicrobial properties. Below are the offered masterbatch products which should be selected based on best pairing the compatability of the mastberbatch carrier with the resin it is being let down into. Custom compounding of the antimicrobial powder into a thermoplastic carrier resin of choice is available upon request.

Product Options

Defend Rx U1000 - Universal Antimicrobial Masterbatch, 4wt.% LDR

Defend Rx PA2000 - PEBA Antimicrobial Masterbatch, 4wt.% LDR

Defend Rx PU3000 - Thermoplastic Polyurethane Antimicrobial Masterbatch, 4wt.% LDR

Defend Rx Custom - Thermoplastic carrier of choice

General

Uses	Medical/Healthcare Applications Tubing, Housings, Wearable Technologies, and other Contact Surfaces
Appearance	Natural
Forms	Pellets
Processing Method	Extrusion/Injection Molding

Drying

It is recommended that these antimicrobial masterbatch pellets are physically mixed with the desired thermoplastic resins at 4wt.% prior to drying. The mixed pellets should then be dried at a maximum temperature of 180F to moisture levels of less than 0.05wt.% for PEBA or polyamides or less than 0.02wt.% for TPU resins. Alternatively, the masterbatch pellets could be dried separately and mixed afterwards; however, this order of operations may expose the dried materials to moisture absoprtion from the air during the mixing process. For materials that are very sensitive to hydrolytic degradation, it is recommended that the dried mixtures of pellets are transferred directly from the dryers to a hopper feeder with a blanket of inert gas during processing.

Processing Parameters

A 4wt.% addition of these antimicrobial masterbatches to bulk resin should not significantly influence processing parameters. It is recommended that processors start with nominal processing conditions for the selected material. Subtle adjustments, such as increasing back pressure in an injection molding process, may help to achieve the most homogenous incorporation of the antimicrobial masterbatch into the bulk resin. Cooling at the feedport is recommended to prevent the occurrence of bridging.

Storage Conditions

Store in a cool, dry area away from direct sources of light, heat, fire, and moisture. Once opened it is recommended to immediately reseal the packaging or keep the container tightly closed to prevent exposure to moisture.

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