ai d2p Anti-Insect

Natural anti-insect Plastic Technology

Prevents insects from penetrating packaging, consuming the product, and laying eggs - which not only compromises food quality and safety but also contributes to food wastage and financial loss.

www.d2p.net

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In many countries, penetrating insects like the Indian Meal Moth, and Pantry, Grain and Flour moths cause serious infestations of stored products i.e. in warehouses, grain silos and food factories. The females can lay between 150-400 eggs at a time with the entire life-cycle being completed in 30 days, resulting in 8 or more generations of the insect per year in optimal conditions.

These infestations can have a significant impact on the food industry's bottom line, as these pests can destroy large quantities of food stocks, causing financial loss due to wastage and the need to replace damaged produce. Additionally, the cost of pest control and preventative measures and structural damage caused by infestations add further economic burdens on the food industry.

These insects affect a wide range of food crops:

- Rice
- Flour
- Pasta
- Grains
- Nuts
- All types of beans
- Sorghum
- Maize
- Cowpeas
- Chocolate

Our Mechanical Plastic Insecticide Masterbatch is incorporated during the manufacturing process of the plastic packaging at between 5 - 8% depending on the application. There is no need for specialist machinery or for re-training the workforce.

Safe for Food Contact: Approved for food contact as per FDA - USA and EFSA - EU Regulations

Mode of Action:

The small particles of the active in the masterbatch have extremely sharp and abrasive edges capable of cutting into the exoskeleton of insects, causing them to dry out and die.

Our mechanical insecticide is non-poisonous and non-toxic to fish and aquatic invertebrates.

Effective against:

- Arthropods
- Red Flour Beetle
- Weevils
- Foliage feeders
- Almond Moth Larvae
- Spiders
- Scorpion Pests
- Bed Bugs
- Cockroaches
- Crickets
- Fleas

CASE STUDY

d_2p Natural AI masterbatch was added to the polymer for the coating and tape for PP woven bags.

Method: Three types of food bags were tested.

1 - Control bags – i.e. Without d_2p Natural AI
2 - Bags with d_2p Natural AI in the coating layer
3 - Bags with d_2p Natural AI in both the coating layer and tapes

The test lasted 90 days with inspections every 15 days for insects present on the bag surface and inside bags.

RESULTS

Bags made with d_2p Natural AI masterbatch remained clean - No signs of insects either on the surface or inside the bags. The control bags (without d_2p Natural AI) had insects both on the surface and inside the bags.

RECYCLED Paper made from recycled material FSC® C020119

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