

Coatings and Polymers for Food Packaging

What is it?

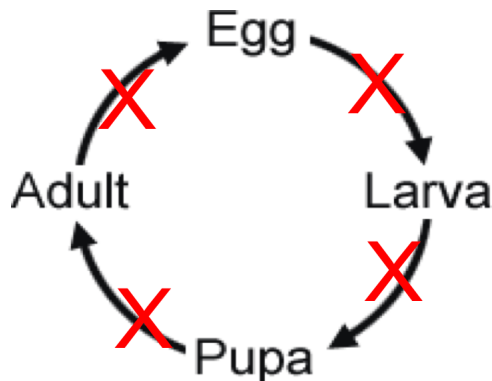
ProvisionGard™ is a brand of patented water based coatings and flexible packaging polymers that contain an active insect growth inhibitor ingredient to control insect infestation of foods packaged in paper or film packaging. ProvisionGard™ will prevent insect infestations for over 2 years. The formulations are non hazardous and compliant with EPA and FDA CFR rulings for food contact.

Why does it matter?

Stored-product insects, such as the Indianmeal moth and beetles can work their way into any package, including foils and plastic films. National and Global distribution channels present food contamination risks that can be mitigated with this technology. Insect infested products lead to consumer complaints, inventory returns, retail charge-back, and lost sales opportunities for consumer goods companies. The combination of these risks creates a cost savings opportunity.

How does it work?

As insects contact and lay eggs on the surface of the ProvisionGard™ treated packaging, they absorb the insect growth inhibitor and cease evolving to their next stage of the growth cycle and die without contributing to insect population growth. ProvisionGard™ is a non toxic technology and will not kill a live adult insect but will control the eggs and offspring of adults to systemically and safely protect food stuffs.



Target Market and Application:

ProvisionGard™ can be incorporated into folding carton, corrugated, multi-wall bag, stand up pouch, flexible bags, and woven poly bag packaging for pasta, bakery mixes, rice, fresh & dried fruit, ready to eat cereals, power bars, pet food, seeds, chocolate, coffee, and more...

Features, advantages, and benefits:

- Adopting ProvisionGard™ requires no new capital expenditures.
- ProvisionGard™ does not change any physical properties of paper and film packaging.
- ProvisionGard™ passes palatability and odor testing requirements for food packaging.
- The products are EPA registered and fully compliant with all regulatory agencies, such as:
 - EPA requirements for food, feed, & tobacco packaging
 - CONEG requirements of the toxics in packaging laws
 - California Proposition 65 regulations
 - FDA compliant raw materials
- ProvisionGard™ is nontoxic to people and pets.
- The active ingredient has been applied directly to food for insect control for over 35 years.
- OCIA International and other organic certifying agencies have approved ProvisionGard™ for use on secondary and primary organic packaging.

Impacts of Using this Technology:

- Experiments to test the efficacy of ProvisionGard™ at controlling Indianmeal Moth population growth have demonstrated average reductions in the number of insects by 93% to 100% in treated packaging compared to control packaging.
- Commercial applications have demonstrated between 70% to 100% reduction in returns.
- Fumigations are eliminated for shipments and finished product warehousing.
- Consumer comments are reduced by 95%.