Dow’s products and technology are all around—driving improvement in agriculture and water treatment, to better building products for our homes and leading edge electronic technologies. Through “Discover Dow” we hope you will learn more about the way Dow touches and enhances lives throughout the world.

The Complexity of Chips

When you open a bag of your favorite potato chips, you expect to dig into a fresh, crunchy, salty snack. But do you ever think about what keeps those chips, or crisps to some, from going stale before they’re opened?

Potato chip bags are more than just a way for you to distinguish between barbeque, cheese, paprika, salted or any other flavor. Food packaging is designed to keep the perishables inside fresh and safe — as well as provide a way for manufacturers to promote their brands.

So whether it’s potato chips, pretzels or popcorn, when it comes to snack food bags, there’s more than meets the eye. Snack food bags are composed of a complex, multi-layered laminated structure. Because some snacks, like potato chips, are a little oily, the inner shiny layer — which is usually a metalized film layer — is impermeable. The oil doesn’t soak through to the outside of the bag (as it would with a plain paper bag, for instance). The inside of the outer layer — or printing layer — allows brand manufacturers to create the colorful packaging we recognize on store shelves, while the outer layer itself gives the bag its glossy look.

These micro thin layers are fused together with lamination resins from Dow. These adhesive resins allow packages to have the multiple layers needed for functionality and performance, while using less overall material. This results in lighter, more flexible and more sustainable packaging.

Sealant resins from Dow can also be used to seal the snack food bags — creating a gas impermeable or hermetically sealed bag that retains freshness while on the store shelf, but remains easy to open when it’s snack time.

Not only do Dow adhesive resins help keep your favorite foods fresh and safe, but Dow also has created liquid adhesives for food packaging that are made with up to 55 percent renewable content — and use less energy to fabricate than competitive products. These MOR-FREE™ laminating adhesives also enable lighter weight packaging, which helps optimize the transportation of foods — reducing carbon dioxide emissions, energy and water consumption.

Where else are Dow adhesives used in food applications?

Here are just a few examples:

- Candy wrappers
- Chocolate packaging
- Condiment bottle seals
- Frozen dinners
- Granola bar wrappers
- Ice cream cartons
- Juice cartons
- Milk cartons
- Tuna fish pouches