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Corn Starch

What is it?

[Corn starch](#), a carbohydrate extracted from the endosperm of corn, is widely used as a thickening agent in various food products. Native corn starch is the pure form of starch extracted directly from corn. It is a white, powdery substance that is naturally gluten-free. Native corn starch is used in cooking to thicken sauces and soups, and in baking for making tender cakes and pastries. While native corn starch has its advantages, its functionality can be limited in certain food applications which is where modified corn starch comes in. Modified corn starch is developed by treating native starch to alter its properties, including its reaction to heat, cold, acids, and shear. This modification enhances its performance, making it more suitable for specific applications such as improving the texture and appearance of processed foods, and increasing the shelf-life of products.

Where is it used?

Native and modified corn starches are found in almost every type of manufactured food product

Bakery: provides viscosity to batters, slows staling, and provides freeze-thaw stability to all types of baked goods

Batters and breadings: provides adhesion as well as crispiness in coating systems for meat, french fries, vegetables and other prepared foods

Beverages - to increase viscosity and create a thicker, more pleasing texture in fruit juices, smoothies, and fruit-flavored drinks.

Confectionery - used for texture in gummy and gelly candies, as a dusting and molding starch for certain candies, and as an anti-sticking agent marshmallows and hard candies.

Convenience Foods: provides thickening and stabilization of soups, sauces, salad dressings, marinades and gravies as well as freeze-thaw stability in frozen prepared foods

Dairy: to thicken and stabilize yogurt, beverages, desserts and whipped toppings. It can also improve texture and reduce ice crystallization in ice cream and frozen desserts.

Meat: as a binder to enhance the texture, juiciness, and overall quality of meat products such as sausages, meatballs, and burgers, as well in coating systems for chicken tenders, nuggets, or schnitzels

Variations and Selection Criteria

To appropriately select the correct starch, we need to consider the properties of the product such as texture, viscosity, and mouthfeel, and emulsification requirements; the processing conditions such as temperature, shear, pH; and the finished product requirements such as shelf life, storage and freeze-thaw stability. Modified corn starch is not considered natural due to the chemical modification it has undergone, so not commonly accepted in clean-label products. Native or physically modified starches are more appropriate in those situations. Blendtek has a wide range of conventional, non-GMO and organic starches and can help you select the appropriate one for your food or beverage.

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Conclusion

Corn starch is a very versatile ingredient used in many different types of food and beverage products. It is a critical component of the eating experience for the end consumer, and it is critical to select the appropriate option based on the various criteria of your project. Contact Blendtek today to assist you on your journey.