Modified Starch Production Line Makes Starch More Widely Used

Modified starch is a kind of modified starch. This kind of starch has some special physical and chemical properties. When it is added to the food formula, it can make the food have better properties in processing or eating.

Modified starch

In order to improve the properties of starch and expand its application, physical, chemical or enzymatic treatments are used to introduce new functional groups on starch molecules or alter the size of starch molecules and properties of starch granules, thereby changing the natural characteristics of starch (such as gelatinization temperature, thermal viscosity and stability, freeze-thaw stability, gel strength, film forming property, transparency, etc.), making it more suitable for certain purposes. Application requirements. This kind of starch, which has changed its properties after secondary processing, is called modified starch.

Purpose of denaturation:

1?In order to meet the requirements of various industrial applications. For example, high temperature technology (canning sterilization) requires starch to have good high temperature viscosity stability, frozen food requires good freeze-thaw stability, and jelly food requires good transparency and film-forming.
2? It is to open up new uses of starch and expand its application range.

Application fields of modified starch:

1.Modified starch for food: mainly used as thickener, gelling agent, adhesive, emulsifier and stabilizer, such as candy, dairy products, rice flour products, baked food, frozen food, sauce seasoning meat and fish products, feed, etc.

Application of modified starch in food field

2.Other applications: biopharmaceutical, cosmetics, casting, building materials, textile, paper making, agriculture, forestry and horticulture, oil drilling, waste treatment and paper making and many other fields, with broad market prospects.

Denatured starch production line is a kind of equipment specialized in starch production. This kind of starch production line equipment regulates the structure of machine cavity and screw rod, so that the use range of starch is diversified. The starch series products produced by this equipment are applicable to the fields of textile, food, paper making, building materials, casting, oil drilling, etc. with the deepening of research, the starch production line equipment is located in starch Market The field will play a more and more important role.

Modified starch production line

Production process:

Raw material mixing, extrusion and maturation, drying, crushing and packaging (flexible setting and configuration)

Working principle:

The production of modified starch by twin-screw extruder is a hot extrusion process of high temperature, high pressure, short time, low moisture and high energy, which can be carried out in a single equipment. Compared with the traditional production process, the production process is short, the production cost is reduced, the time-space output is high, energy-saving and efficient, the equipment matching is simple, the land occupation is small, the operation is convenient, and there is no sewage and green Environmental protection. Twin screw extruder has higher mixing efficiency, better process control and uniform products. It is an economic and feasible processing method for producing various modified starch quickly and continuously.

Extrusion provides a lot of advantages for the production of many products compared with other technical products, because in most cases, this kind of extrusion process integrates the functions of many different equipment in a single process, and can carry out mixing, extrusion, shearing, cooking, forming and drying to a certain extent at the same time. On the other hand, compared with single screw extruder, twin screw extruder has a great advantage in a series of performance indexes, such as the degree of ripening of processed products, the uniformity of particles, the surface finish of particles, and the range of suitable processing formula.