

Processing technology of corn flakes



The degree of deep processing of maize is relatively low in China. Therefore, it is of great significance to develop corn products vigorously.

In foreign countries, as an indispensable breakfast food or leisure food in people's daily life, cornflakes are deeply loved by people. China's research in this area is still very backward, basically in a blank state.

The corn flakes studied by our company are made loose by [microwave dryer](#) technology, and then add improvers to make the corn flakes crisp and delicious, the introduction of the [flakes production line](#) to maintain the original flavor, taste and color of corn - to a certain extent, to maintain the original flavor of corn.

The essence of gelatinization is that the hydrogen bonds between and within the starch molecules in the ordered and disordered state are broken, and the process of dispersing in water at a certain temperature is the necessary condition for gelatinization, and the gelatinization is more thorough as the pressure increases and the holding time prolongs.

In addition, the composition of raw materials also has a greater impact on gelatinization, for example, when salt concentration is 0,1, it has little effect on starch gelatinization, but when salt concentration is (, 1), starch gelatinization temperature will rise, difficult to gelatinize; with the increase of sucrose concentration, the gelatinization temperature of corn starch will increase, mainly because of the presence of sucrose inhibition The hydration of starch granules.

Effect of baking on the quality of cornflakes

Before entering the oven, the moisture content of cornflakes is - 213 -! 1. In the oven process, due to intense heat, moisture is vaporized, resulting in internal pressure greater than external pressure, resulting in product expansion, cornflakes structure occurred micro-expansion, so that the product is crisp. If the temperature is too high and the moisture content is too low, it is easy to form brown skin or scorching.

The effect of carbohydrates on the quality of cornflakes is small for mono-and bis-oligosaccharides. During starch gelatinization, mono-and bis-oligosaccharides can penetrate into starch granules with water and interact with starch molecules. For polysaccharides, they often appear in food system and coexist with starch, which can thicken, fill, improve texture and so on. Flour retrogradation has an important effect, and the degree of starch retrogradation has an important effect on the quality of cornflakes.