# 2 minutes application break Pectin

### **Facts**

Origin France
Dates back Late 18th century
Ingredients Pectin is a naturally
occurring substance found in fruits
and vegetables

A thickener and stabilizer in food products. Potential health benefits.

# MixSing Vortex



### Design

Shear	CFD simulations confirms >200,000 s <sup>-1</sup>
Design	According to European legislation and CE marked
Hygiene	Complying with EHEDG guidelines
Viscosity	Up to 1,000 cP
Accessories	Table
Materials	Stainless steel: AISI 316L. All materials: EC 1935

## Insight

Pectin is a naturally occurring complex polysaccharide that can be divided into two main types: high-methoxyl pectin and low-methoxyl pectin. The main difference between these two types of pectin is the degree of methoxylation, which refers to the number of methoxy groups present in the pectin molecule. High-methoxyl pectin requires the presence of calcium ions to gel and is typically used in products such as jams and jellies. In contrast, low-methoxyl pectin can gel in the presence of acid and is used in products such as fruit juice and dairy-based products.

Pectin is extracted from fruits and

vegetables, typically from peels, pulp, and seeds. The most common sources of pectin are apples, citrus fruits, and berries. However, it can also be extracted from other fruits and vegetables, such as bananas, mangoes, carrots, and beets.

Pectin was first discovered in the late 18th century by French chemist Henri Braconnot. He found a gel-like substance formed when heated with sugar and acid.

In the early 20th century, commercial production of pectin began, primarily in Europe. This was possible by developing new methods for extracting pectin from

fruits and vegetables, such as steam peeling and centrifugation.

During World War II, pectin became a critical ingredient in producing food rations for soldiers, as it helped preserve fruits and vegetables for longer periods. After the war, pectin became more widely used in commercial products such as jams, jellies, and fruit preserves.

In recent years, pectin has also found use in the pharmaceutical and cosmetic industries.

The power of simplicity