

PECTIN IN FOOD & BEVERAGE PRODUCTS

PECTIN IS A VERSATILE NATURAL INGREDIENT

Pectin is a natural fibre found in fruits and vegetables. The pectin found in fruits such as apples, oranges, lemons and limes offers particularly good gelling, thickening and stabilizing properties.

For decades, pectin has been used in the preparation of homemade jams and jellies, and it remains today a staple ingredient found in kitchen cupboards all over the world. It is a natural ingredient with a long heritage and enjoys high levels of recognition and awareness among consumers of all ages and backgrounds.

PECTIN DELIVERS GREAT TEXTURE AND STABILITY

Texture is a really important factor in food and beverage products. However nice something tastes, if it doesn't have a pleasant texture then we're unlikely to enjoy it. Pectin's natural properties make it perfect for improving texture in many foods and beverages and achieving what experts call a good 'mouthfeel' – how a product feels in your mouth.

Pectin also serves as an excellent stabilizer, ensuring products remain in perfect condition and maintain an appealing appearance – even if they won't be consumed until a later date. Ensuring that food and drink products look good over time is important to encouraging consumption rather than letting products go to waste.

PECTIN PERFORMS WELL IN RECIPES

Today, pectin is used in a wide range of products. Food companies value pectin because it is a highly 'functional' ingredient, which means it performs well in recipes, helping to improve texture and ensuring stability after they've been produced. They also like that it is found naturally in fruit, which means it is the perfect ingredient for creating consumer-friendly products with natural appeal.

Pectin enables food companies to make high quality and wholesome products that are also great value. It is suitable for vegans and vegetarians, so in jellied desserts and confectionery it's a great alternative to gelatine, which is extracted from animals like cows, pigs and fish.



Fruit-based products: Pectin offers fantastic setting properties for jams, jellies and desserts



Bakery: Pectin helps stabilize the fillings and toppings used in cakes, pastries and biscuits



Dairy: Pectin is a great natural thickener for yoghurts and ensures high-protein drinks are stable



Confectionery: Pectin is an excellent vegan and vegetarian alternative to gelatine in jellied candy



Beverages: Pectin can improve the texture of low sugar drinks



Nutrition products: Pectin is a natural soluble fibre, so it can be used to enrich health foods and drinks

INTRODUCING THE PECTIN FAMILY

There are different types of pectin ingredients, all made from the pectin fibre found naturally in fruit.

High methyl ester pectin

As fruit ripens, the ester units in the pectin gradually react with water and turn into pure galacturonic acid units.

During extraction and subsequent treatment, the same transformation in the pectin will continue at a faster rate, but in controlled conditions. If the de-esterification is brought to an end when more than 50% of the galactan units remain esterified, the result will be a high methyl ester pectin.

This type of pectin is traditionally used in jams, marmalade and confectionery products. It is also an effective stabilizer for acidic, protein-rich products such as yogurts and drinks containing whey or soya, where it prevents the proteins from coagulating and curdling during processing and storage.

Rapid set and slow set versions of high methyl ester pectin are available for different applications and deliver targeted functionalities.

Low methyl ester pectin

De-esterification to the extent that fewer than 50% of the total galactan units in pectin are esterified results in low methyl ester pectin. This is suitable for low-sugar products, including reduced sugar preserves, yogurts, desserts and toppings, as well as savory applications such as sauces and marinades. Achieving a set with low methyl ester pectin requires the presence of soluble calcium ions.

There are two main types of low methyl ester pectin: conventional, which is suitable for all low sugar applications, but especially for bakery fillings that are added to dough prior to baking; and amidated, which is ideal for very low sugar applications and usually achieves a set without the need for extra calcium.

Speciality pectins

By adding buffer salts to slow set and amidated pectins, it is possible to produce speciality blends that give confectioners greater control over the gelling characteristics of jellied candy. High methyl ester pectins can also be amidated to achieve more flexibility in confectionery manufacturing. Other types of pectin can be used in the pharmaceutical and nutrition sectors, where they are appreciated for their functionality and natural appeal.