



How airtight separators help solve the coconut challenge

BEVERAGE, SEPARATION

Global demand for coconut water continues to grow among consumers, but the challenge for producers of this nutritious but fragile beverage remains: how to protect it from the air that makes it rapidly deteriorate during processing.

The coconut is a wonder of packaging, naturally hermetically sealed so that it keeps its contents fresh for months. But as producers of coconut water have known since consumer interest in the beverage started to grow in Brazil in the 1980s, this is a product that requires quick and careful processing.

Once a coconut is crushed and the shell's natural seal is broken, a race against time starts before the liquid changes colour, the nutrients and flavour degrade, and if left long enough, the liquid becomes rancid and unusable.

This is due to the naturally occurring enzymes – peroxidase and polyphenol oxidase – found in coconut water, which, when they come into contact with oxygen, begin reactions that cause the nutritional and flavour losses.

“In order to get packed coconut water to taste as good as fresh coconuts, the challenge is to process from nut to pack as quickly as possible, while minimizing air contact with the coconut water,” explains Michael Yong, Tetra Pak product manager for separators, who is based in Singapore, where Tetra Pak has a Coconut Knowledge Centre.

An important part of the solution to this challenge is rapid processing with a separator with the same airtight properties as the coconut itself, thereby further minimizing the problem of air being incorporated into the liquid.

“By choosing a hermetically sealed separator, you can help solve this issue,” says Yong. “Just like the coconut shell itself, these closed separators prevent air from coming into contact with the liquid, while gently and effectively removing the fine particles and fats in the coconut water. This will not only improve the quality of the coconut water, but also protect it.”

The coconut water market has boomed in the last five years, as health-conscious consumers choose this product that is naturally low in fat and sugar, but which provides similar benefits to energy and sports drinks. The global coconut water market is expected to grow at a compound rate of more than 25% until 2020, according to a report from February 2017.

To discover more insights on coconut water processing:

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