PRESS RELEASE

Sumitomo Bakelite Co., Ltd. April 10, 2025

Development of Medical Device Packaging Mono-material Film that Is Easy to Recycle

Mass production and sales to customers are scheduled to begin in fiscal year 2025.

Sumitomo Bakelite Co., Ltd. (TOKYO: 4203 HQ: Shinagawa-ku, Tokyo, President and Representative Director: Kazuhiko Fujiwara) is pleased to announce the development of a mono-material film made of a polyethylene-based material, taking advantage of the company's resin blending and co-extrusion multilayer film processing technology. Having now completed development, we aim to begin mass production and sales of this easily recyclable packaging material for medical device packaging in fiscal year 2025.

[Background]

In recent years, it has become necessary to address environmental issues such as climate change and resource depletion. Under these circumstances, there is a growing need for recyclable packaging materials as one way of reducing packaging waste.

Currently, composite films made of different materials are widely used, combining different materials in layers to achieve excellent functions such as light weight, high strength, moisture resistance and storage stability. However, because the different materials are combined in a complex manner, it is difficult to separate the individual materials, making recycling extremely difficult. As a result, when they are disposed of as waste, they are often incinerated, which increases the environmental burden by emitting carbon dioxide (CO2) and other greenhouse gases, and this is considered a problem.

To address these issues, it is essential that companies and consumers work together to realize a circular economy that aims to use resources efficiently and minimize waste. In Europe, regulations and guidelines are already being established by governments and international organizations, and specific policies are being implemented to reduce plastic waste and increase recycling rates.

[Packaging material for medical devices: SUMILITE[®] CEL (polyethylene mono-material film)]

In response to this market demand, our company has been developing a film that is made from a single material and has sufficient strength and formability required for packaging materials. By utilizing our many years of co-extrusion multi-layer film processing technology and making the film from a single polyethylene material, we have developed a monomaterial film that has improved recyclability while also providing the heat resistance, easy peel ability, pinhole resistance, and thermo-formability that are important



for medical device packaging, which is the target of this development.

Customers can use the mono-material film in the same conditions as their current mixed-material composite films and can reduce the environmental impact by recycling medical device packaging.

Development of this product was completed in 2024, and we are currently introducing it to medical device manufacturers and medical device packaging material manufacturers. We plan to start mass production and sales in fiscal year 2025.

[Product features]

- As made of a single polyethylene material, there is no need to separate it into an individual material after use, making it suitable for recycling.
- ✓ By combining polyethylene-based materials with different properties, it has properties equal to or greater than those of conventional composite material products.





Note: This graph is a relative comparison of the characteristics of each film sheet and does not represent an absolute characteristic value.

Item	Test	Unit	Direction	CEL-9530A
Thickness	-	μm	•••	150
Tensile	JIS K 7127	N/mm ²	MD	49
strength			TD	43
elongation	JIS K 7127	%	MD	776
			TD	762
tear strength	JIS K 7128	N/cm	MD	1198
			TD	1170
Light	JIS K 7361	%	•••	89
transmittance				
Cloudiness	JIS K 7136	%	•••	15

Specification

composition

Note: The above values are representative values and are not guaranteed.

For inquiries:

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