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RESEARCH SUMMARY

Yano Research Institute Ltd.

2-46-2 Honcho, Nakano-ku,
Tokyo 164-8620, Japan

Market of High-Performance Materials for Packaging in Japan: Key Research Findings 2015

◆ Research Outline

Yano Research Institute has conducted a study on the domestic market of high-performance materials for packaging with the following conditions:

1. Research period: From September to November, 2015
2. Research target: Manufacturers of soft packaging materials (L-LDPE, OPP, CPP, and PET) and original fabrics, of high-barrier materials, easy-peal films, shrink films, and freshness-keeping packaging materials
3. Research methodologies: Face-to-face research by the expert researchers

What is the Market of High-Barrier Materials for Packaging?

The high barrier materials for packaging in this research indicate the following eight items: Aluminum foils, PVDC coated films (K-coat films), EVOH-used films, PVA2 biaxial stretch films, PVA coated films, aluminum-deposited films, transparent vapor disposition films, and multilayer co-extruded Ny films. The market size is calculated based on the shipment volume at the domestic manufacturers of these eight items.

Note that this research indicates PVA coated films to include those with the organic-inorganic hybrid property, and multilayer co-extruded Ny films to be those with only barrier property.

◆ Key Findings

■ High Barrier Materials Market for Packaging in 2015 Projected to Achieve 124,390 t, 102.1% on Y-o-Y Basis, Driven by Lengthened Food Life

The domestic market size of high barrier materials for packaging (total shipment volume at the manufacturers of Aluminum foils, PVDC coated films (K-coat films), EVOH-used films, PVA2 biaxial stretch films, PVA coated films, aluminum-deposited films, transparent vapor disposition films, and multilayer co-extruded Ny films) is projected to achieve 124,390 tons, 102.1% of the size in the previous year.

In order to reduce food waste, retention period of food is needed to be prolonged among food manufacturers and the logistics/distribution industries. This has raised the needs of aluminum-deposited films, transparent vapor disposition films, and other high barrier materials for packaging. However, although introduction of high-barrier materials for packaging may have reduced wasted food, it also reduced the demands of conventional packaging materials as a whole, which is said to have inhibited the market expansion in some cases.

■ With Easy-Peel Films Found New Applications in Medical and CVS Sectors, Domestic Market Size Likely to Attain 8,250t, 105.8% on Y-o-Y Basis

Since easy peel films used to only apply to lid materials of containers for some soft foods such as desserts and tofu products, its market had been considered to be already matured without much promising demands. Recently, however, there have been growing demands for new applications such as lids for coffees provided at a counter of convenience stores and for packaging of medical equipment. The recent growth of the domestic easy-peel film market size is expected to reach 7,800 tons in 2014, 106.1% of the size in the previous year, and to attain 8,250 tons by 2015, 105.8% of the size in the preceding year, based on the shipment volume at

manufacturers.

■ Joint Venture or Integration of Manufacturing Subsidiaries May Become Options for Streamlining of Production

While the domestic market of high-performance materials for packaging is stable, future market expansion is not necessarily promising due to decreasing population and other uncertainties. This is preventing the manufacturers from large facility investment such as augmenting production capacity or constructing a backup system of the manufacturing base. In such a circumstance, some manufacturers have started joint venture or integration of manufacturing subsidiaries with other enterprises, aiming to streamline their production structure. Despite limited capital and human resources, such alignment with other companies enables manufacturers to expand or review their production structures while minimizing the investment risks and costs.

◆ Report format:

Published report: "High-performance Packaging Materials Market 2015-2016"

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Format: 259 pages in A4 format

Price: 120,000yen (The consumption tax shall be charged additionally for the sales in Japan.)

Contacts: Public Relations

Yano Research Institute Ltd. (URL: <http://www.yanoresearch.com>)

Phone: +81-3-5371-6912

E-mail: press@yano.co.jp

■ **Table 1. Transition of Domestic High-Barrier Materials Market Size for Packaging by Item**
(Unit: tons)

		2013		2014		2015 (Prospect)	
			Y-o-Y		Y-o-Y		Y-o-Y
Aluminum foils	(Distribution Ratio)	41,000 (34.3%)	90.5%	41,700 (34.2%)	101.7%	42,000 (33.8%)	100.7%
PVDC coated films	(Distribution Ratio)	7,450 (6.2%)	99.5%	7,430 (6.1%)	99.7%	7,670 (6.2%)	103.2%
EVOH-used films	(Distribution Ratio)	3,000 (2.5%)	100.0%	3,000 (2.5%)	100.0%	3,000 (2.4%)	100.0%
PVA2 biaxial stretch films	(Distribution Ratio)	900 (0.8%)	100.0%	930 (0.8%)	103.3%	950 (0.8%)	102.2%
PVA coated films	(Distribution Ratio)	4,450 (3.7%)	101.1%	4,450 (3.7%)	100.0%	4,500 (3.6%)	101.1%
Aluminum-deposited films	(Distribution Ratio)	34,350 (28.8%)	110.2%	35,050 (28.8%)	102.0%	36,010 (28.9%)	102.7%
Transparent vapor disposition films	(Distribution Ratio)	19,100 (16.0%)	105.4%	19,790 (16.2%)	103.6%	20,310 (16.3%)	102.6%
Multilayer co-extruded Ny films	(Distribution Ratio)	9,210 (7.7%)	102.7%	9,480 (7.8%)	102.9%	9,950 (8.0%)	105.0%
Total	(Distribution Ratio)	119,460 (100.0%)	100.1%	121,830 (100.0%)	102.0%	124,390 (100.0%)	102.1%

Survey by Yano Research Institute

Notes

1. The market size is based on the shipment volume at manufacturers.
2. The figures in 2015 is prospect values.
3. Since the figures are rounded, sum of the ratio in the table are partly inconsistent.
4. This research indicates PVA coated films to include those with the organic-inorganic hybrid property, and multilayer co-extruded Ny films to target those with barrier property.

■ **Table 2. Transition of Easy-Peel Film Market Size**

	2,012	2,013		2,014		2015 (Prospect)	
			Y-o-Y		Y-o-Y		Y-o-Y
		Market Size	7,000	7,350	105.0%	7,800	106.1%

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■ **Table 3. Major Cases of Joint Venture or Integration of Manufacturing Subsidiaries**

Month/Year	Details
Dec, 2011	Idemitsu Unitech Co., Ltd. And KOHJIN Film & Chemicals Co.,Ltd. established a joint venture company K&I Film that manufactures ONy films.
Nov, 2012	Kohjin Co.,Ltd. spun off its films/chemicals business and made itself a holding company, Kohjin Holding, to shift itself. The films/chemicals business has been inherited by the newly-established KOHJIN Film & Chemicals Co.,Ltd.
Jan, 2014	Nippon Foil Manufacturing and Sumitomo Light Metal Industries have established their joint venture company, UACJ Foil Corporation.
Feb, 2014	Musashino Industrial and KF Films have established their joint venture company, SKYFILM Co.,LTD.
Jan, 2015	Each subsidiaries of Toyoybo Co,, Ltd. and DIC Corporation have been integrated to establish Cast Film Japan to produce CPP and other films.
Oct, 2015	Sun Tox Co., Ltd. executed allocation of new shares to a third party, Rengo Co.,Ltd., whose investment ratio to Sun Tox has changed to 20% after the allocation, and other 80% occupied by Tokuyama Corporation.
Nov, 2015	Toyo Aluminium K.K. announced its plan to integrate and merger its subsidiaries Tokai Aluminium, Toyo Aluminium Chiba K.K., Toyal Techno Frontier K.K. The joint venture company is to be established in April, 2016.

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