Jun. 16, 2023

Lion Corporation

SOFLAN Aroma Rich Bottle Wins the Kinoshita Award in the Research and Development Category from the Japan Packaging Institute "A Fabric Softener Packaging Made of Post-Consumer Recycled Resin and with a Lightweight Cap"

Lion Corporation (President Masayuki Takemori) announces that its fabric softener bottle, developed with YOSHINOKOGYOSHO CO., LTD. (President & CEO: Shoichiro Yoshino), was awarded the 47th Kinoshita Award in the research and development category from the Japan Packaging Institute. The prize was awarded in recognition of the reduced environmental impact of the utilizing recycled plastic bottle and a lightweight cap that uses a smaller volume of petroleum-derived plastic.

■ Development Background

Lion is working toward realizing a resource-circulating society, and our goal is to reduce the percentage of petroleum-derived plastic used in products and containers to less than 70% by 2030. Focusing on the fabric softener bottle, the packaging of which uses the largest amount of plastic among our products, we have developed a packaging that addresses environmental issues.

■ Technological Strengths

I. Utilizing Recycled Plastic

○ Safety Considerations Built into the Three-Layer Structure

The plastic we utilized was made from collected used packaging. For the inner and outer layers, we used petroleum-derived plastic. Because recycled plastic is not typically used in household products, it was used for the middle layer to ensure quality consistent with that of as conventional products (Figure 1).

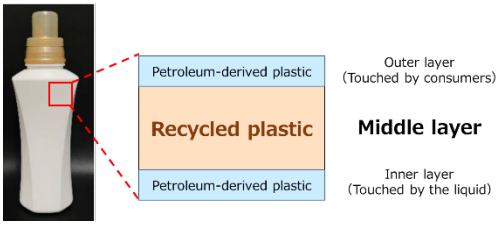


Figure 1. Bottle Composition

○Reducing Odor Risk

The odor characteristic of recycled plastic has been reduced to the same level as that of conventional bottles by raising the temperature of the alkaline wash during the treatment process at plastic recycling plants.

II. Reducing the Amount of Plastic

○Reducing Cap Weight

The amount of plastic used in the caps was reduced by approximately 35% compared to the previous version of the product by reducing the number of screw turns of the caps, making the walls thinner and optimizing the nozzle shape. In particular, the original cap had double-layered nozzle (outer and inner) to prevent liquid from overflowing from the mouth when the bottle is tilted, but

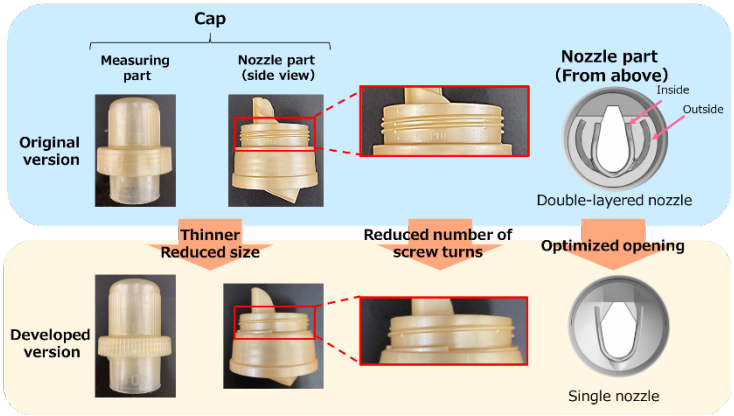
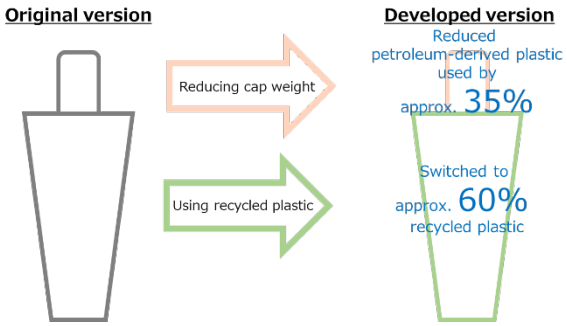


Figure 2. Measures to Reduce Cap Weight

we took on this challenge by developing a new single nozzle with an optimized shape (Figure 2).

■ Results of this Development

This development allowed us to use approximately 60% recycled plastic for the bottle body compared to the conventional design, and the use of petroleum-derived plastic in the cap was reduced by approximately 35%, helping to reduce environmental impact.



■ About *SOFLAN Aroma Rich*

SOFLAN Aroma Rich, which uses the packaging developed from this research, originally launched in October 2022, has been praised as the only fabric softener*1 formulated so that your preferred fragrance lasts and lasts without changing. The market for fabric softeners was about ￥150 billion*2 in 2022 and *SOFLAN Aroma Rich* is driving the market, growing at 111%*3 year-on-year in terms of value of sales.

*1 Among Lion fabric softeners.

*2 Sales value for fabric softeners
from INTAGE SRI+ from January to December 2022

*3 Sales value year on year
from INTAGE SRI+ from January to December 2022

■ Award Ceremony

The award ceremony was held on Tuesday, June 13, 2023 at Josui Kaikan (Chiyoda-ku, Tokyo).
○Award theme: A Fabric Softener Packaging Made of Post-Consumer Recycled Resin and with a Lightweight Cap

At the ceremony

◆Kinoshita Prize, Japan Packaging Institute: The Kinoshita Award was created to commemorate the many contributions to the packaging industry of the late Matasaburo Kinoshita, second chairman of the Japan Packaging Institute. The award is given to products and technologies that have contributed positively to the packaging industry, and there are three categories: research and development, improvement and streamlining, and creation in new areas.

■ Future Plans

Lion will continue to contribute to realizing a resource-circulating society by advancing the development of technologies to reduce the environmental impact of its packaging and containers.