Featured Article

The RIKEN TECHNOS GROUP continues to develop products to contribute toward a sustainable society.

Gakuyuki Kajiyama

Director
Managing Executive Officer
Senior General Manager of Sales & Marketing Division

The phrase "We continuously provide new value and satisfaction to people, companies and society" is found in our mission. The environment is especially gaining attention recently as such a new value, and we are undertaking initiatives in this area.

The RIKEN TECHNOS GROUP will address various issues related to the environment using materials. Some examples are the selection of materials that are friendly to the environment, going back to their raw materials, and formula designs that are suitable for recycling.

Specific product lineups include: PVC compounds with lower ratios of petroleum-derived raw material; the thermoplastic elastomer ACTYMER® and LEOSTOMER® series which are synthetic rubber substitutes that are excellent for recycling and low-energy processing; RIKEBIO® biomass materials; and RIKEGUARD® which protects people's health with its anti-microbial and anti-viral processing.

Through address environmental issues, the RIKEN TECHNOS GROUP provides everyone with comfort and contributes toward society.

Measures against infectious diseases

Since last year, the RIKEN TECHNOS GROUP has been receiving strong recognition for our anti-microbial and anti-viral product RIKEGUARD. We will further expand our lineup to protect people from infectious diseases. In addition, we will add insect repellent and anti-allergen series to RIKEGUARD® and enhance this product.

Antiviral & antimicrobial product

RIKE+GUARD®

Reduces certain viruses on film surface by 99.99%!

+ Antimicrobial function

Keeps propagation of certain bacteria on film surface below 1%

* Compared to generic coated products

Can be used for applications such as touch panels and other displays

RIKEGUARD® is also used for book covers.

Hitoshi Sugino

Director
Executive Officer
Senior General Manager of Technical Division
& General Manager of R&D Center

The phrase "carbon neutral" spread in Japan in October 2020, when Prime Minister Suga declared that Japan will aim to be carbon neutral by 2050 in his policy speech. Carbon neutrality became a national policy and the industrial sector also started to take action.
RIKEN TECHNOS CORPORATION is a manufacturer of plastic materials. Plastic materials are widely used in the world with no suitable substitutes because they are light, sturdy, and can be freely shaped. However, petroleum-derived products make up a majority of these materials. Based on such considerations, we conduct product development keeping carbon neutrality also in mind. In 2019, we launched RIKEBIO®, which uses biomass materials (plant-derived plastics). We are also substituting general-purpose plastics—which are made mainly with petroleum-derived raw materials—with PVC resins. Salt makes up approximately 60% of the raw materials for PVC resins. We will aim to build a sustainable production model by reducing the use of petroleum and considering recycling. In addition, as materials which are suitable for recycling and save energy, we are working on the development of synthetic rubber substitute thermoplastic elastomers. We are considering the making of synthetic rubber substitute compounds and sheets.
Even if products are good for the environment, they cannot help to lower environmental burden if they are not chosen. For them to be chosen by many people, they need to be useful and within reach, or in other words, they must be practical. Our approach is to develop plastic materials with amazing performance, and provide every customer with convenient options that are also friendly to the environment.

Biomass compounds

We are working on the development of biomass compounds and are launching them under the brand name RIKEBIO®. The features of RIKEBIO® are that it can be used for a wide range of hardness requirements and that it is capable of achieving quality and performance equivalent to petroleum-derived compounds.
Currently, soft PVC compounds have attained the Biomass Mark with 40% biomass content.

RIKEBIO

バイオマス
No. 200258

About Biomass Mark

Biomass Mark is a label for environmental products that use resources derived from living things (biomass), and conform to laws, regulations, standards, specifications, and other such criteria related to quality and safety.

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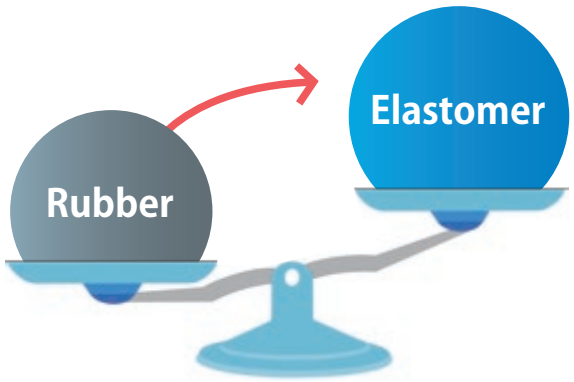
Recycling

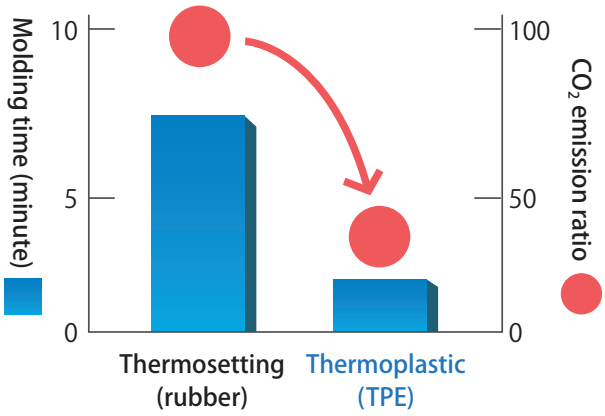
Synthetic rubber is difficult to recycle. We are developing thermoplastic elastomers which serve as substitutes.

Thermoplastic elastomers are plastics that have the same elasticity as rubber at room temperature. At the same time, they can be made into products using the same molding methods as plastics. Unlike synthetic rubber that is difficult to recycle, being thermoplastic means these elastomers can be shaped by adding heat, **allowing them to be recycled**. The same resources can be used continuously, which makes their use an affective measure for saving resources.
Due to their elasticity, they are already widely used in vehicles as sealing materials. As they are **approximately 20% to 30% lighter than synthetic rubber**, they **also contribute toward improving the fuel efficiency of vehicles**.
Currently, we are developing substitute materials that are good for the environment—no matter how little—like these thermoplastic elastomers and promoting the gradual switch to them.
In FY2020, the sales ratio of these recycling-friendly materials increased.

Approximately 20% to 30 lighter than rubber



1/3 the molding time of rubber



Elastomer products are used as lightweight materials that contribute toward improving the fuel efficiency of vehicles.

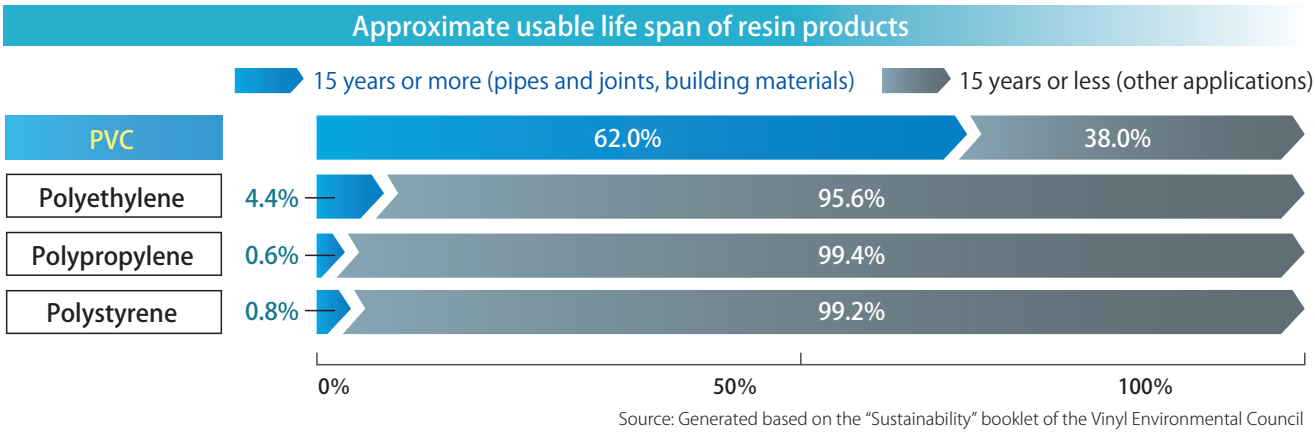
They are also used in caps of decorative bottles.

Resource-saving and durable

Since being established, **approximately 60% of the raw materials of polyvinyl chloride (PVC)** being manufactured and sold by RIKEN TECHNOS **is derived from natural salt**. Compared to resins mainly made from petroleum, such as polyethylene and polypropylene, it has a low ratio of petroleum-derived raw materials. PVC is said to be a resource-saving resin as the Earth has an inexhaustible supply of salt. Furthermore, PVC products have very long life spans and are used in many applications which require durability over 10 years to several decades. The PVC products of RIKEN TECHNOS continue to be used in various applications, such as building materials like window frames and decorative films, tubing for medical supplies, and covering materials for wires used in vehicles and buildings.

PVC products with long life spans

Among resin products, a feature of **PCV products is their very long life spans**. They help to **save resources** as they are used as building materials—such as window frames, flooring materials, and wallpaper—for 10 years to several decades. Some, like PVC pipes, can be used for more than 50 years.



Source: Generated based on the "Sustainability" booklet of the Vinyl Environmental Council

It is used in hoses which require durability.

It is used in covering materials of power cables that support infrastructure.

It is widely used in resin sashes that have high insulating properties.