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Global Excellent Manufacturing Company

Sumitomo Riko's Goals

A smarter, more comfortable

lifestyle is what we are aiming for.

The Sumitomo Riko Group aspires to be a

"Global Excellent Manufacturing Company"

serving the world as a stable source of
high-quality products across the four fields of

"Automotive (Mobility)", "Infrastructure and Housing environment",

"Electronics", and "Healthcare".

Sumitomo Riko - Creating New Values

Sumitomo Riko's products and services.

These are the crystallization of our continuous efforts
at the coalface of MONOZUKURI, under the motto of "Creating New Value",
in order to further improve Safety, Comfort and the Environment of people.

"Safety, Environment, Compliance, and Quality (S.E.C.-Q.)" are the basic tenets of
our business, and it is our utmost aim to provide our customers
with an enriched standard of living, ensuring our quality control
is of the highest standard. But we have only but started our journey.

Sumitomo Riko pursues its business activities unceasingly.

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The Sumitomo Spirit

The Sumitomo Spirit has been refined through the generations for 400 years based on the Founder's Precepts "Monjuin Shiigaki," which Masatomo Sumitomo, the founder of the Sumitomo family, wrote and handed on to describe how a merchant should conduct business. The basic points of the Sumitomo Spirit have been passed on in the form of the two articles of the Business Principles as management guidelines of Sumitomo companies.

Business Principles

*Quoted from the Sumitomo Goshi Kaisha Administrative Regulations formulated in 1928

rticle 1.

Sumitomo shall achieve prosperity based on a solid foundation by placing prime importance on integrity and sound management in the conduct of its business.

Article 2.

Sumitomo's business interests must always be in harmony with the public interest. Sumitomo shall adapt to good times and bad times but will not pursue immoral business.

Sumitomo Riko Group Management Philosophy

In light of the Sumitomo Spirit, all of us at the Sumitomo Riko Group will:

- 1. We will provide superior products and services to meet customer needs based on technological innovation.
- We will place top priority on safety and work to ensure the safety of people and society.
- We will strive to protect the global environment and to contribute to creating better communities.
- 4. We will maintain a high standard of corporate ethics and observe all laws and regulations to earn public trust and confidence worldwide.
- 5. We will foster an invigorating corporate culture that respects our employees' diversity personal qualities, and individuality

History

Sumitomo Riko's **Core Competencies** Conceiving **New Ideas**

Sumitomo Riko's **Technologies**

Rubber Bushes

Control System:

Electrical Property

Control

Heat Control

Heat dissipation/Heat shield

Evaluation

The footprint of innovation taken by Sumitomo Riko

Based on the technologies of compounding, synthesizing, and modifying, our "Polymer Materials Technology" gives form to superior functional materials and creates products with exceptionally high added value

On top of this is our "Comprehensive Evaluation Technology" that enables us to evaluate and verify the required performance and reliability by ourselves.

With these strengths supporting research and development at Sumitomo Riko as our core competencies, we are reaching out to new markets and regions.

as well as aggressively expanding our existing business. We continue our challenge to create value that plays a vital role for people, society, and the earth's environment.

Polymer Materials Technology Sumitomo Riko

Supplier offering proposals anchored in core competencies and exceeding customer expectations

> Comprehensive **Evaluation Technology**

Polymer Materials **Technology** High Reliability/

Long Life High intensity/High durability vironmental durability

Fluid Control

Window Films with high transparence reflecting and lating against hea

2022V

We persistently strive to meet customer needs by reiteration of the cycle of new materials creation and feedback from product evaluation to new materials.

1988

first expansion overseas

1988 Established DTR Industries, Inc. (current SumiRiko Ohio, Inc.),

Second Founding,



the Company's first overseas production base in the U.S.

1990 Fuii-Susono factory (current Fuji-Susono Plant) started operation

1994. Listed on the second section of the Tokyo Stock Exchange (TSE)

Established subsidiaries in Thailand and China, the Company's first bases in Asia

Listed on TSE and NSE changed to first section

1999 Established a subsidiary in Poland, the Company's first base in Europe

1984

2002 Established TRI Technical Center USA, Inc. (current SumiRiko Technical Center America, Inc.), the Company's first overseas development base in the U.S.

2008 Construction of Technopia. an R&D laboratory, completed (Komaki-shi, Aichi)



Third Founding, Enhancing our global reach through mergers and acquisitions

2013

2013 Acquired Dytech-Dynamic Fluid Technologies S.p.A. (current SumiRiko Italy S.p.A.), an Italian automotive hose manufacturer, and Anvis Group GmbH (current SumiRiko AVS Holding Germany GmbH), a German automotive anti-vibration rubber manufacturer, and made them into consolidated subsidiaries

> Completed Training Center Unuma Sangakukan (Kakamigahara-shi, Gifu)

2014 Company name changed to Sumitomo Riko Company Limite

2015 SumiRiko FC Seal, Ltd. established to take on the manufacturing functionality of "cell gaskets", the rubber seal components (Komaki-shi, Aichi)

> SumiRiko Yamagata Company Limited established as the first manufacturing base in the North-eastern region of Japan to

manufacture anti-vibration rubber (Yonezawa-shi, Yamagata)

2003

2015 SumiRiko Corporation established to market general industrial goods (Naka-ku, Nagoya-shi)

2016 Established Global Headquarters (Nakamura-ku, Nagoya-shi)

> SumiRiko Automotive Hose Poland Sp. z o.o. established in Poland to manufacture automotive hoses

Established collaborative venture between industry, academia, and government at the "Kyushu University Health Care System Lab Itoshima' (Itoshima-shi, Fukuoka)

Established Advanced Automotive Systems R&D Center (current Advanced Systems R&D Center) (Komaki-shi, Aichi)

2018 Integrated two industrial hose subsidiaries to form Sumitomo Riko Hosetex, Ltd. (Ayabe-shi, Kyoto)

2019 Absorbed and merged with SumiRiko Fine Elastomer, Ltd., rubber seal manufacturing company and established Saitama Plant (Ageo-shi, Saitama)

Toward becoming a **Global Excellent Manufacturing Company**

"2022 Sumitomo Riko Group Vision (2022V)" Corporate Strategy

- 1.Creation of new businesses and new customers
- Creation of new businesses
- Global sales expansion

2.MONOZUKURI innovation

- Development of strong workplaces to prevail over competition (SRIM 22 Act)
- Technological innovation (environmental technology) World's top quality

3 Reinforcement of global business foundations

- Strengthening of global human resources
- Strengthening of global infrastructure

1964 Moved the head office from Yokkaichi-shi to Komaki-shi, Aichi 1976 Foreman Training (F-Ken) started as part of efforts to develop human resources as part of the general improvement

1954

automotive

Company name changed to Tokai Rubber Industries, Ltd.

1943 Matsusaka Factory (current Matsusaka Plant) started operation

Company name changed to Tokai Rubber Industries, Ltd.

(Changed Kanii for Rubber to Katakana, different Japanese character)

(using Kanji for Rubber in the Japanese name)

1960 Komaki Factory (current Komaki Plant) started operation

1949 Listed on the Nagoya Stock Exchange (NSE)

1986 Opened the Technical Center at the head office (Komaki-shi, Aichi)

First Founding

1929 Established in Yokkaichi-shi

1930 Company name changed to

Mie as Showa Kogyo Co., Ltd

Kabata Chotai (Belt) Co., Ltd.

Joined the Sumitomo Group.





1929



activities at workplaces

1959

1968

1971 automobile interior business

of producing seals

of seals for wire connectors.

parts for office business

controlling/insula tion products

Entered business of producing ubber bearings for bridges

5000





2001

entered the

housing market

production of electrical active

he "GRAN MAX" hydraulic hoses

2004

earthquake for high-rise

2005

"TRC Damper" earthquake countermeasures for wooden houses

2008

high transparency eflecting and insulating against heat "Refleshine series, entered market for window

2010

window films with "SR Soft Vision"

series body pressure sensors entered health and nursing

2013

flexographic entered

2014

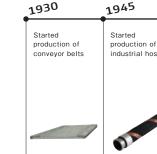
printing plates flexographic printing business

Started sales of

water-washable

Started mass production of "cell gaskets", the rubber seal components ed for FC stacks in fuel cell

04











radiator hoses:

ose business

ull-scale launch











1994























03 Sumitomo Riko | Corporate Profile

Mid-term Business Vision

2022 Sumitomo Riko Group Vision

Sumitomo Riko Mid-term Business Vision



Since its founding in 1929, Sumitomo Riko has steadily expanded its business fields while grasping the direction of the times and market needs with great accuracy. Doing so, we have delivered high value-added products to the world. In recent years, Sumitomo Riko has established a platform for rapidly supplying products to the world, accelerating this process even further as a company active on a global scale.

At the same time, even as the automotive industry undergoes a major transformation on a once-in-a-century scale, we believe we must never forget our pride as a Japanese manufacturing company that is committed to detailed craftsmanship and high quality. We must further refine "Polymer Materials Technology" and "Comprehensive Evaluation Technology," our core competencies developed over many years, and respond swiftly to changes in the business environment as we produce products adapted to new eras.

Moving forward, we will continue to evolve as we make strides toward our aspiration of being a "Global Excellent Manufacturing Company" that plays a critical role around the world, while also remaining committed to the Sumitomo Spirit of Shinyo-kakujitsu*1 and Fusu-furi*2. We ask for your continued understanding and support of our Group's corporate activities.

Sumitomo Riko Company Limited Representative Director and President & CEO Kazushi Shimizu

*1: Place importance on integrity and sound management. *2: Do not act rashly or carelessly in pursuit of immoral business.

What the Sumitomo Riko Group **Aspires to Be**



2017 2022 2029 2018

Vision

A corporation that contributes to and the environment for people,

safety, comfort, society, and the earth

Company

Theme

2022 Vision

Aim for consistent growth and organizational in the business environment

Business strategies

- Creation of new businesses and new customers
- MONOZUKURI innovation
- Reinforcement of global business foundations

reinforcement amid major changes

Consistent growth

growth

Sumitomo Riko's centenary

2029 **Net sales of** trillion yen

> What we aspire to be in 2029

2017

FY2017 results 462.9 billion yen

Operating profit 12.2 billion yen

Operating profit to sales

FY2022 targets

Corporate value (Financial objectives) 530 billion ven ROA 6% Operating profit 25 billion yen **7**% 5% Operating profit to sales

Public value (Non-financial objectives) Cut by 8%CO₂ reduction Cut by 5% Waste reduction

Global system supplier

Sumitomo Riko | Corporate Profile

Products

Sumitomo Riko Group's Products

Sumitomo Riko manufactures advanced products based on our core competency,

"polymer materials technology" cultivated since the company's founding.

With our continuous creation of new value, we are helping to

build a society that is safe, secure, comfortable and environmentally

friendly across the four fields of "Automotive (Mobility)",

"Infrastructure and Housing environment", "Electronics", and "Healthcare".

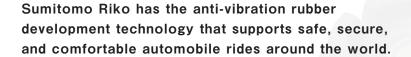


[Automotive (Mobility)]

The automobile is the most familiar form of getting around there is. Sumitomo Riko's automotive products provide further comfort as well as safety and security to drivers and passengers. We are the world's top supplier* of anti-vibration rubber products that reduce vibration and noise caused by the engine and road surface. Our wide-ranging products include automotive hoses for which

we have the largest market share in Japan*, sound

controlling/insulation products and interior equipment, such as engine covers and seats. Through our global development and supply network covering five key regions, we are a stable source of consistently high-quality products for automotive manufacturers worldwide. *Estimate by Sumitomo Riko





Sumitomo Riko first started the development of anti-vibration rubber in 1953. Ever since the company was established in 1929, though we have produced rubber products like conveyor belts, rubber thread, industrial hoses, with the growing importance of the automobile in society, the president at the time expressed his desire to develop products that made full use of the elasticity in rubber as a spring, and this led to our involvement in the anti-vibration rubber field. The first item we developed was the supports for engines that keep the engine in place and fix it to the chassis. During the early development phase there was a long period of trial and error finding ways to attach the rubber to the metal so that vibration could be reduced

and how to improve durability so that deterioration could be dealt with. When we learned that a major US manufacturer had developed a material that could prevent deterioration of rubber, we implemented that technology as fast as possible and repeated our trials and improvements. Our efforts were rewarded when Toyota Motor Corporation evaluated our products and praised them as having superior durability and little variation in quality, so that our products were used in a luxury passenger vehicle developed as a purely domestic design, the Toyopet Crown, which went on sale in 1955. With our first product being used in a Toyota vehicle, we soon received orders from other manufacturers, and this marked the beginning of our development of anti-vibration rubber business for other fields as well. Since then, for more than 60 years this product has been a pillar of Sumitomo Riko, being the main support to provide safe and comfortable rides for automobiles manufactured both domestically and all over the world.



Sumitomo Riko's gaskets for cells are being used in Mirai, the fuel cell vehicle from Toyota Motor Corporation.

Topics

lopics

Sumitomo Riko first started developing products for FC in fuel cell vehicles (FCV) in early 2000s. In 2008, the company started joint development with Toyota Motor Corporation of "seal components" the power generation components becomes possible and which makes possible the production of cells that can produce electricity stably. In a further application of this technology, we developed the new cell gaskets with rubber sealing parts for the Mirai ECV from Toyota Motor Corporation that went on sale in December 2014. The Mirai is fueled by hydrogen and produces only water as its exhaust, making it extremely ecological. Its power source is an FC stack of 370 cells. The development of these gaskets for cells, which maintain the flows of hydrogen and oxygen inside the fuel



Cell gaskets adopted on "Mirai"

cell and improve the emission of the water that is produced, has enabled the development of FC stacks that are higher performing, smaller, and lighter. Furthermore, we fused our precision processing technology built up through developing products such as automobile anti-vibration rubber, and the high-performance rubber, which has long-term sealing properties across a wide range of temperatures, thereby ensuring the long-term reliability of

Sumitomo Riko is committed to flexibly responding to the needs of our customers in the evolving automobile market, while solving issues in society, and contributing to the production of people and earth-friendly vehicles.



Anti-vibration Rubber

Sumitomo Riko's anti-vibration rubber products use rubber developed using our polymer materials technology, boasting flexibility, damping, and reliability, efficiently abs orbing the vibrations from the engine and road surface to help contribute to a comfortable vehicle space



Heat-resistant Rubber Products

- Engine Mounts
- 2 Exhaust Pipe Supports



Our heat-resistant rubber an achievement of our high-polymer materials technology, delivers twice the heat-resistance of conventional mounts for long-lasting reliability

Adaptive Hydraulic



Appropriately tuned, adaptive hydraulic engine mounts reduce the vibration generated by engines, contributing to both comfort and stable handling.

excellent environmental credentials.

Chassis Parts

- **3** Suspension Bushes
- Suspension Member Mounts Strut Mounts

Our rubber materials endowed with twice the durability of conventional materials contribute to improved reliability and product downscaling.

Adaptive Hydraulic



Sealing the insides of rubber bushes with liquid for greater damping force and an optimal spring constant realizes both a smooth ride and stable handling.

Lightweight Parts

- 1 Torque Rods with resin brackets Besin Dust Covers



Our products designed by exploiting the characteristics of glass fiber-reinforced improve automotive fuel efficiency.

Active Control Products

- 1 Electrical Active Control Mounts (E-ACM)
- 6 Vibration Cancellation Systems (VCS)



The shape design in combination with meticulous material selection to exploit key optimized for engines which comply with material characteristics delivers gains in environmental regulations. Real-time performance and reliability. These easily modulation of the spring constant and recyclable, lightweight products have phase realizes a quiet ride in a wide range of conditions.

Dampers

Dynamic Dampers



Installed in automotive subassemblies, devices which control vibrational eigenvalues suppress vibration to deliver more comfortable and quieter

Sound Controlling & Insulation Products

There are many sources of noise in an automobile, including engine. Sumitomo Riko's sound controlling and insulation products shut out these noises

and keep the inside of the cabin quiet. Our original urethane is used for the engine cover due to its heat resistant and sound absorption and insulating properties, realizing a high degree of noise reduction even on the engine parts with high temperatures.

1 Engine Covers

Installing a cover over the top of the engine reduces engine noise. We use materials with excellent heat-resistant and fire proofing properties to enable applications at extremely high temperatures. Optimized cover design also contributes to an improved engine compartment appearance.

2 Standing Wave Spacers

These products fill airspace to reduce noise generated in gaps between the engine body and its peripheral equipment. Our mold-casting technology enables fitting into spaces with complex shapes

Interior Equipment

Inside equipment in automobiles directly contacts the body of the user so apart from the obvious requirements for safety,

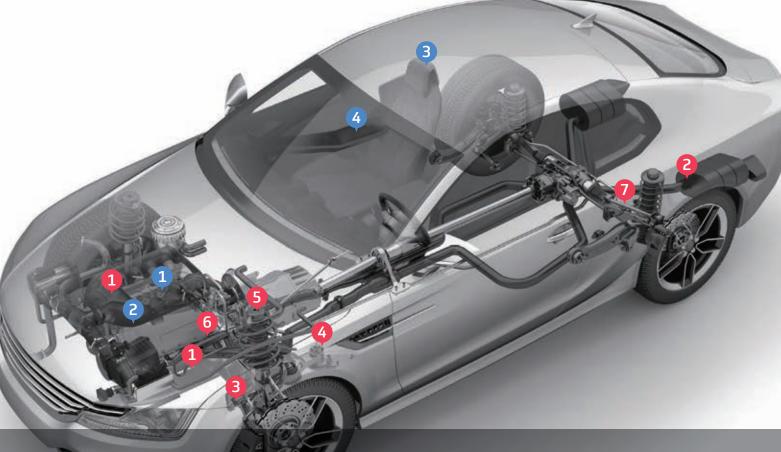
it is also important that the equipment satisfies the five senses We manufacture interior parts such as headrests and armrests that have a pleasant texture but also have excellent shock resistance.



Our interior equipment contributes to comfort and safety in the car. Our unique urethane material and comprehensive production capabilities covering the entire manufacturing processes from cutting, sewing to integrated foaming result in products of consistently high quality.



Situated on the central parts of the doors on both sides, these provide comfort during the ride by proving a place to rest your arm. We adopt integrated molding techniques with outstanding design flexibility to provide products that provide comfort to drivers and passengers.

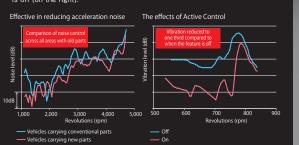


Anti-vibration rubber continues to evolve along with the automobiles it helps support. For a safe and comfortable ride and to contribute to the environment.

me example is the Electrical Active Control Mount (E-ACM). The shaking of the engine is examined a

Development of anti-vibration rubber with dramatically high-performance

This is a graph showing a comparison between the noise during acceleration of a vehicle using the new parts and old parts (on the left), and a graph comparing the vibration control effect when Active Control is on and when it



Heat Conducting & Sound Reducing Materials Magnetic Induction Foaming (MIF)



prox. –10_{dB}*



Hi<u>ro</u>taka Matsui

Hoses

Sumitomo Riko automotive hoses run the length and breadth of the inside of vehicle chassis and are prized for their technology which combine rubber and resin. They are used in many parts of the vehicle from around the engine to around the fuel tank due to their superior heat resistance, impact and vibration absorption and light weight properties.

Starting with "CASE*", we think this is a major opportunity for great change in the automotive industry, and we will create new technologies and products that are suited to electrification and environmental regulations.

★C: Connected, A: Autonomous, S: Shared & Services, E: Electric

Global share

in FY 2019

★Estimate by Sumitomo Riko

Rubber Fuel Hoses



These products are mainly used around the engine and fuel tank, so require the use of materials with extremely good fuel resistance and durable structures. They are used in extremely severe environments where flexibility is required.

Resin Fuel Hoses



This product is mainly used around the engine and fuel tank. These resin hoses have low permeability and are made up of multiple layers of polymer materials, complying with the world's strictest gasoline evaporation regulations



These are mainly found around the gasoline tank, repeatedly absorbing and releasing gasoline vapor. They comply with the world's strictest gasoline

Air Control Hoses



We have developed the polyme materials technology to make these hoses extremely heat resistant. The product line-up includes heat-resistant turbo air hoses for attachment to ultra- high-temperature

Water Hoses



radiator and heater hoses. We use polymer materials technology to make them extremely heat resistant.

6 Oil Hoses



This product is expected to be highly heat-resistant due to the extreme heat in the environment it is used. It maximizes the performance of automatic transmission systems and contributes to the fuel efficiency of the vehicle. It is used in circuits that maintain transmission fluids at a constant temperature.



circulation systems for automobile air conditioning. Advanced technology is used to attach aluminum fittings to both ends of a flexible hose.

Air Conditioning Hoses Hydrogen Hoses



Seal Products



hard to seal small gaseous matter at high pressure. Installed in fuel cell vehicles (FCV), these hoses require a high level of reliability and durability to ensure that hydrogen is not leaked outside the vehicle under any

There are bundles of cables that carry power and signals and wire harnesses threaded throughout vehicles. There are about 500 waterproof seals used in each vehicle for the wire harnesses in and around the car, and we are able to provide a stable supply of these using our precision rubber molding technology and quality assurance system.

Connector Seals



These waterproof connector seals are fastened to wire harnesses. Precision metal molding and liquid silicone molding technologies eliminate burrs and losses. In-line inspection assures the quality of all seals.

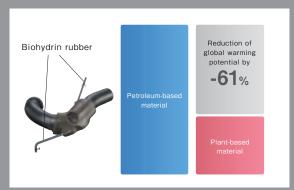


These seals provide waterproof effect to each wire in the connectors. They are produced by the fully automated processes, from the material feeding to inspection and packing.

Biohydrin rubber

Environmentally friendly rubber from plant-based materials.

made with petroleum-based materials. Biohydrin rubber is being developed by Sumitomo Riko in partnership with Toyota Motor Corporation and Zeon Corporation. It is a synthetic rubber composed of a variety of compound technologies that bond plant-derived materials with petroleum-based materials at the molecular level. It maintains the same levels of durability and resistance to oil and heat as conventional petroleum-based hydrin rubbers. The further benefits of this is that the raw materials are plants which absorb CO₂ from the atmosphere as they grow, and with the reduction in power consumption during the production process, when



Overcoming a variety of hurdles on the way to commercialization.







[Infrastructure]

Sumitomo Riko's industrial hoses used in construction machinery and construction sites and our rubber bearings for bridges used for protecting infrastructure networks such as elevated highways and bridges from the threat of earthquakes contribute to the development of building the foundation of industry and public transport. We have achieved the largest share of the market* for anti-vibration rubber for rolling stock used in Shinkansen and trains in Japan, and it is also widely utilized overseas.

Sumitomo Riko also contributes to earthquake disaster reconstruction, the Tokyo Olympics/Paralympics and infrastructure improvement around the world, particularly in emerging countries.

> The Shinkansen is the envy of the world. And Sumitomo Riko is the company that has supported its continued safe running.

Topics

Sumitomo Riko has been developing anti-vibration rubber for rolling stock ever since the 0 series Shinkansen. The Shinkansen is a stand out achievement in high speed rail. Many of the anti-vibration rubber products used in the rolling stock are from Sumitomo Riko. Along with safety, the environmental credentials of the product are also very important considerations during development. Furthermore, increasing the durability of the product lengthens its life cycle and reduces maintenance costs. Finding a comprehensive solution to these issues is our mission. We will continue to strive to get the most out of the know-how we have built up and deploy it as widely as possible around the world.

Heavy Machinery

We utilize our rubber compounding, molding technology, metal fitting processing, and bonding technology to provide ultra-durable hoses that meet the needs of various industrial machines. Our hydraulic hoses feature a multi-layered structure consisting of layers of rubber and wire to provide both resistance and flexibility. The use of special compound rubber imparts resistance to weather and long-term durability

Hvdraulic Hoses



Products Compatible with international standards

These are used in heavy construction equipment and forklifts, with compact piping flexibility. They are to be found playing their part in building the infrastructure and working in logistics all around the world.



Construction and Civil Engineering

Industrial hoses are used at building construction and civil engineering sites Sumitomo Riko offers high-durability hoses that utilize special rubber materials and structural design technology based on our material development technology. These include abrasion-resistant hoses used to deliver raw concrete and drain mud from underground construction sites and oil-resistant hoses for industrial machinery.

Industrial Hoses



Used by attaching to the end of a concrete pump that pumps ready-mixed concrete at construction sites. It is lightweight, flexible, and features excellent workability. A special rubber compound and structural



They are used to convey water, mud, and concrete, and you can find them helping with construction deep underground. Over many years, they have contributed to the development of our towns and cities, being used in a variety of major projects.

Bullet Trains and Railway Rolling Stock

Sumitomo Riko's rubber products are more than a match for the requirements of infrastructure where long life and durability are required The anti-vibration rubber for railway rolling stock reduces the vibrations from rails, are able to withstand constant vibration and harsh environmental conditions and are widely used widely in high-speed railways both in Japan and around the world.

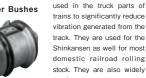
Anti-vibration Rubber for rolling stock

Mono-link Bushes









These rubber products are

Bridges, Highways and Railways

We develop rubber bearings that safeguard bridges such as elevated highways and bridges from environmental changes and disasters. These have the effect of reducing the inertial force felt when an earthquake occurs and contribute to the improvement of the seismic performance of the bridge. We safeguard social infrastructure with our main products, our "THD" seismic isolation rubber bearings, which feature superior stable temperature dependence, and our "HDR-S" high damping rubber bearings.

Example of rubber bearings



Disc rubber bearings of high contact pressure "DRB"



Able to be installed in small spaces at new and existing bridge. Utilizing urethane rubber and a disk bearing structure, this is a product that realizes high contact

Landscape Materials

We can offer products for a variety of aesthetics needs. We contribute to improving landscape and the environment with a variety of products, including the "MOLD STAR" a concrete mold with a rich variety of designs that harmonize with the natural surroundings, and buried formwork used in landslide prevention works and sheet metal restoration applications



MOLD STAR in the Tan Tan Tunnel in Hyogo

Panels for refurbishment of open channels



High-strength precast panels and concrete filler covering the surface of aged steel pipe sheet piles extend the life of channels and reduce life

Buried formwork "PATWALL"



This product has already been used in a wide variety of applications, including control, and waterway restoration. Because the pieces are light, the

construction can be performed with manpower, and being easy to put together and cut, they contribute

[Housing Environment]

Protecting people's livelihoods is "TRC Damper", Sumitomo Riko's earthquake countermeasure systems. These dampers absorb the shaking during earthquakes and greatly reduce the shaking of buildings. Furthermore, "Refleshine", our highly transparent reflecting and insulating films for windows, are not only used in factories and offices but can also be found on trains, providing comfortable spaces wherever used.

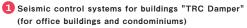
housing environment



Sumitomo Riko is the driving force in the new technology of seismic control, born of necessity in earthquake-prone Japan.

Housing environment

Sumitomo Riko is also deploying its polymer materials technology in devices for the housing environment. TRC damper is able to reduce the shaking and deformation caused to buildings during earthquakes. A special viscoelastic rubber, developed using our advanced compounding technology, used in the dampers reduc shaking by instantly converting earthquake energy into thermal energy.







Using our unique viscoelastic rubber. this is an effective earthquake countermeasure system for high-rise Idings including office buildings and condominiums. Its thinness and compactness are also features

 Dampers for traffic vibration mitigation "Multi-type TMD:Tuned Mass Damper"



This device reduces the lateral shaking caused by nearby traffic or other sources of vibration inside or outside the house. Its mass moves in the direction opposite hus canceling the vibration

Seismic control systems for wooden houses "TRC Damper'





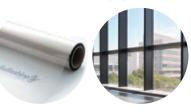
damage to wooden houses during earthquakes. The energy from earthquakes is instantly converted to thermal energy to reduce shaking. These dampers are not only suitable or new houses, but can also be applied to existing structures, and they are effective against repetitive quakes such as from after shocks.

6 Concrete molds "MOLD STAR"



These concrete molds have been widely used in construction and building. The exteriors of buildings can be decorated beautifully and given personality by adding these richly designed molds along with

Window films with high transparency, reflecting and insulating against heat "Refleshine"

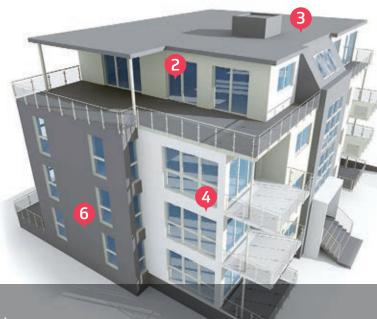


This window film keeps heat from sunshine out in summer (heat shielding) and stops indoor heat from It is transparent but also maintains safety if the glass breaks, improving comfort year round near the windows and contributing to savings in air-conditioning power. There is also expanding use in train windows, not

4 Heavy Floor Impact Noise Countering Dampers



floor above, for example, the noise of children jumping or people walking around, by the complex damping effect of springs, mass, and high-damping rubber. It absorbs vibration and mutes noise transmitted to lower floors in condominiums and two family houses.



Taking the world-class anti-vibration technology develop over years in the automotive field and applying it to seismic control technology in construction.









Yosuke Kawabata

[Electronics]

From charging rollers, which Sumitomo Riko was the first to develop and productize, through to cleaning blades and developer rollers, wherever you look in the vital parts of devices such as printers and copiers you will find Sumitomo Riko parts performing vital functions that influence the quality of the picture. We provide solutions to the advanced needs of modern society as IT becomes more important through our innovative formulation design

technology, compounding technology to bring together different materials, and our precision processing technology. Along with this, other important issues are the innovative technologies to build societies beneficial to both people and the earth with the burgeoning population putting pressures on resources and energy and causing conflicts, while concern over the global environment grows. At Sumitomo Riko we have been able to produce water-washable flexographic printing plates, a revolutionary concept that contributes to a reduced burden on the environment because organic solvents are not used in the production of the plates. We have been able to enter the environmental solutions field, including plate production systems, and we will continue to move into other business fields with our technologies.



electronics

Components for office automation equipment

Office equipment such as printers and copiers are indispensable in the modern world.

Sumitomo Riko has developed a great variety of functional parts, beginning with the charging rollers,

by making the most of its innovative formulation design technology, compounding technology to bring together different materials, and precision processing technology, contributing to the improvements in performance in office equipment.

Peripheral Parts for Photoconductors

1 Charging Rollers



Our rubber rolls uniformly charge the surface of photoconductor drums. They are highly functional components with a decisive influence on image quality. We were the first in the world to develop and ercialize the charging rollers.

3 Developer Rollers



Molding and adhesion of different materials-metal and urethane-are performed simultaneously. This enables advanced electrical property Cleaning Blades



Cleaning blades remove toner that Molding and adhesion of different materials-metal and urethane-are performed simultaneously. This micron-level, high-precision processing technology is our proprietary technology.

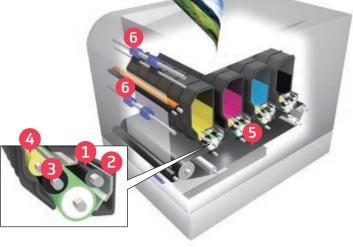
4 Sponge Rollers



Sponge rollers uniformly supply and remove toner. Our processing technology realizes surface design for dimensional accuracy and high durability, thereby 5 Intermediate Transfer Belts



These belts perform the essential function of generating full color images by superposing four-color toners. These seamless belts achieve uniform electrical properties over the entire surface and high durability.



6 Paper Feeder Rollers



These rollers precisely feed sheets of paper one sheet at a time. The combination of our proprietary urethane formulation technology and surface design molding prevents thus helping ensure stable paper feeding.

Flexographic printing



Water-washable flexographic printing plates "AquaGreen"

Flexographic printing is a printing method that uses flexible rubber plates. AquaGreen from Sumitomo Riko is a water-washable flexo printing plate (where other companies use solvents), meaning it is environmentally-friendly and gentle on those working with it. This is a printing plate with top environmental credentials that also provides high resolution and great productivity.



Aiming for a completely environmental printing process. Sumitomo Riko technology has enabled flexographic printing to evolve.



[Healthcare]

We developed our unique Smart Rubber (SR) Sensor, a body pressure detection sensor made of rubber that "visualizes" pressure. These sensors are utilized at medical and nursing care workplaces. Sumitomo Riko continues to develop products and technologies that are useful in keeping us healthy while we live our lives.

New research and development efforts looking into solving the issues we will face in a super-aged society, with collaborative ventures between industry, academia, and government.

In April 2016, the city of Itoshima (Fukuoka Prefecture), Kyushu University, and Sumitomo Riko opened the Kyushu University Health Care System Lab Itoshima (nickname: Fureai Lab). This collaborative venture between industry, academia, and government in the areas



of health, medical care, and long-term care have delivered a variety of results. These include the launch of a mattress that prevents bedsores and the start of frailty checks.

In April 2019, the second phase of the three-party venture began with the goal of establishing a frailty prevention project and implementing it in society. Sumitomo Riko aims to create new health care businesses through such collaborations by industry, academia, and government.

Health & Nursing products

Products using the soft sensor technology are being deployed in the medical, nursing, and health care fields. Using SR Soft Vision to make it possible to visualize pressure, that is, advanced uses of new technology that seems like something already in use, we can develop devices that make manageable those issues in the front line of nursing and health care, thereby contributing to the quality of life (QOL) of the patients receiving care.

Body pressure sensors "SR Soft Vision" Series



A body pressure distribution sensor that can display the distribution and balance of body pressure using Smart Rubber (SR) sensor technology. It is being used in a variety of health and nursing applications such as the se

the computer and mobile device are not included with the product.

Training and evaluation system for chest compression "Shinnosuke-Kun"



A training and evaluation system for chest compressions (cardiac massage) that uses SR sensor technology. It is in accordance with the Japan Resuscitation Council (JRC) Guidelines 2015, evaluating the quality of chest compressions and giving points for each item, improving the results of training exercises such as life-saving

 $\ensuremath{\,^{\star}}\xspace$ The computer, mobile device, and training dummy are not included with the product.

SR active mattress "Taiatsu Bunsan"

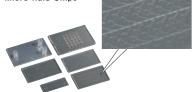


This mattress system, a welfare device that uses SR sensor technology, has been developed through collaborative research between Kyushu University and Sumitomo Riko. Air cells installed in the mattress expand and deflate according to the user's build and sleeping posture, delivering custom body weight dispersion to

 \star The bedframe is not included in the system

Medical Supplies





Used in bacteria testing and for diagnoses of antigen-antibody reactions. Production of these were made possible by injection molding of liquid silicone rubber. Disposal of this type is much easier than the glass ones that were being used, so they also contribute to a better environment.

healthcare

highly evaluated internationally as a symbol of Japanese state-of-the-art technology. After the start of operations of the Taiwanese Shinkansen in 2007, now implementation in India has been decided and more attention is gathering from around the world. It is our Sumitomo Riko anti-vibration



The pursuit of safety and comfort is what we do.

The anti-vibration rubber is used in the truck parts which support the carriages of railway rolling stock, including Shinkansen. In the passenger carrying parts of the carriage above there are regulations about using fire retardants and inflammable materials, but these standards are relaxed for the trucks. Sumitomo Riko, however, prepares for any situation, developing materials with flame retardant properties so

> that we clear even those standards. Rubber is a material whose physical properties are easily changed by temperature. Overseas there are places with extremes of cold and heat not found in Japan, so we have established our own design parameters that anticipate use in a range of environments, and we develop products that also clear these conditions. The people riding in the carriages do not see the anti-vibration rubber. But I believe that it is one of Sumitomo Riko's principles to pursue the safety and comfort of users,

> > even when they are unaware of our efforts.

Kento Tamaki

Taking the next step in evolution with the technology developed in the automotive field.

The anti-vibration technology used in railway rolling stock is indispensable for safety and comfort, but another important property is environmental credentials. There are stringent checks into the materials to confirm that there are no substances of concern that can damage the environment, with the entire life cycle of the product examined from development through to what happens after they are replaced and disposed of. Furthermore, durability is a property that is most sought after by railway operators. That is, they need us to lengthen the life cycle of our products. We have had requests to almost double conventional durability, and this voice is growing. By increasing the life cycle of the part, you decrease the costs of maintenance. Furthermore, in order to respond to the demand for decreased weight, we are taking steps to use resins and other materials other than metals, with the aim to use these also in rolling

Industrial Anti-Vibration Products Engineering Section,
Industrial Products and Materials Engineering Department,
Industrial Products and Materials Business Unit technology

Topics2

Smart Rubber sensor

Aiming to build a society that can save as many people as possible.

"Shinnosuke-Kun" is a cardiopulmonary resuscitation training support system. It is an application of the "Smart Rubber (SR) sensor" that evaluates depth and rhythm, feeding back in real time to raise the quality of training. Major features include the ability to make visual the position pressed and the ability to train on stretchers. Because the size and shape of peoples hands differs, we had a lot of trouble when developing the device trying to improve the precision of the conversions from pressure values to the depth of the press. We sincerely hope that "Shinnosuke-Kun" can improve the

> application of cardiopulmonary resuscitation so that more people can



Sales Section, Health and Nursing Care Products Business Uni Yota Kokubo

We have received good feed back from professionals and normal citizens, saying that we have helped them learn how to better apply cardiopulmonary resuscitation. I am particularly pleased to be able to contribute to society through encouraging the wider use of our device.

> Nursing Care Products Busi Sanae Usami

Each minute and second is precious in medicine. Getting the training for cardiopulmonary resuscitation right is very important.

The ability for general citizens to perform correct and timely cardiopulmonary resuscitation is absolutely necessary to help those that have suffered a cardiopulmonary arrest to get back on their feet as soon as possible. "Shinnosuke-Kun" is a heart massage training device developed using the materials technologies of Sumitomo Riko which helps people acquire the correct cardiopulmonary resuscitation skills. I really want everyone to take part in this training with

"Shinnosuke-Kun" so that they can become true heart helpers for people that have suffered cardiopulmonary arrest, and feel the dedication of the Jichi Medical University,

> Department of Emergency Medicine Kouichiro Minami, MD. Ph.D.

Exhibited at the Komaki Industrial Festival in Aichi. Even the Mayor of Komaki-shi is singing the praises of "Shinnosuke-Kun".

At the Komaki Industrial Festival held in Komaki-shi. Aichi, we presented "Shinnosuke-Kun" at the Sumitomo Riko booth. In his opening address, the mayor of Komaki-shi, Shizuo Yamashita, announced that he himself had given heart massage. It was due to his training on "Shinnosuke-Kun" just prior that he felt he was able to perform cardiopulmonary resuscitation competently, he said, and emphasized the importance of daily training and encouraging the citizens of Komaki-shi to all try "Shinnosuke-Kun".



Mayor Shizuo Yamashita using



Quality

Sumitomo Riko's Quality

With Safety, Comfort and the Environment as our keywords, we want to continue offering joy to our customers around the world.

As a global system supplier constantly creating new value,

Sumitomo Riko places importance on the true meaning of MONOZUKURI, while providing world-class quality products.



Research and Development

The properties and characteristics required of products are becoming more sophisticated, with more demands for safety, comfort, and environmental compliance. One of Sumitomo Riko's core competencies is "polymer materials technology", which is based on the technologies of compounding, synthesizing, and modifying, and we will use this to provide solutions to the demands of society through research and development to create new functional materials and parts.



Design and Analysis

Product design technology that ensures the final product, not just the individual parts, meet the required performance and reliability benchmarks. Along with this is our CAE analysis technology the enables precise performance predictions and optimized design for our rubber and resin products. By making the most of such technology at the design stage, Sumitomo Riko can foresee the needs of our customers so that we are able to develop and provide even more reliable, even higher quality products.

Prototypes and Evaluation

As a system supplier, Sumitomo Riko's core competency, "Comprehensive Evaluation Technology", is the process of analyzing and verifying materials, meticulously and from a variety of perspectives. For example, we have established evaluation technology for evaluating a completed vehicle with all the parts fitted which gives us an insight into the necessity of the part that we cannot see by just examining the part by itself, and this enables us to accurately perceive the sophisticated needs of the end user, our customers, and provide solutions, while providing products with a high degree of reliability.



Manufacturing

Sumitomo Riko, as a manufacturer of highly functional components, has 4 manufacturing bases in Japan (Komaki, Matsusaka, Fuji-Susono, and Saitama plants), as well as subsidiary manufacturers in the Sumitomo Riko Group spread throughout Japan, so that we are able to respond to the sophisticated needs of our customers in a timely fashion

With the knowledge about production technologies we have built up and the promotion of automation in our factories, we continue to output high quality products across a variety of fields, including parts for the motor industry, railway parts for the Shinkansen, heavy machinery and industrial plant, urban construction, infrastructure such as road and rail bridges, precision parts for printers and copiers and similar office automation devices, and parts for homes and nursing.

In the motor parts field, there is an increasing demand for parts from overseas auto makers, so as well as building the structures required to manufacture locally in the Americas, Europe, and Asia, we are also proceeding with setting up manufacturing capabilities for general industrial parts outside of the motor industry.

Sales

In order to be able to satisfy the demands for our products around the world, we have established product development and supply infrastructure in each of the world's five key regions (Japan; the Americas; Europe and Africa; China and South Korea; and the rest of Asia) in the auto parts field. With other general industrial parts as well, such as "Infrastructure and Housing environment", "Electronics", and "Healthcare", we are making use of this network of bases to provide world-class products to our customers.

Europe and Africa

Russia SumiRiko Automotive Hose RUS AO

Russia SumiRiko AVS RUS LLC Poland SumiRiko Poland Sp. z o.o.

SumiRiko Automotive Hose Poland Sp. z o.o. Poland Sumitomo Riko Europe GmbH Germany

SumiRiko AVS Holding Germany GmbH Germany SumiRiko AVS Germany GmbH SumiRiko AVS Netherlands B.V. Netherlands

Czech Republic SumiRiko AVS Czech s.r.o. France SumiRiko AVS France S.A.S.

SumiRiko Rubber Compounding France S.A.S. France

France SumiRiko SD France S.A.S. France SumiRiko Industry France S.A.S. Romania SumiRiko AVS Romania SRL SumiRiko Italy S n A Italy

Spain SumiRiko AVS Spain S.A.U.

SumiRiko Hose Otomotiv Sanayi Ticaret ve Pazarlama Limited Şirketi Turkey Tunisia SumiRiko Automotive Hose Tunisia Sarl

Tunisia SumiRiko Metal Tube Tunisia Sarl South Africa SumiRiko South Africa (Pty) Ltd.

China and South Korea

Sumitomo Riko (China) Co., Ltd. Tokai Dalian Hose Co. Ltd. China China Tokai Rubber (Tianiin) Co., Ltd. China Tokai Rubber Moldings (Tianjin) Co., Ltd

China Tokai Chemical (Tianjin) Auto Parts Co., Ltd. China Huanyu Tokai Rubber (Tianjin) Co., Ltd. China Tokai Jinrong Die (Tianjin) Co., Ltd.

China TRFH Co., Ltd.

SumiRiko AVS Wuxi Co. Ltd. China

China SumiRiko Automotive Suzhou Co., Ltd. Suzhou Tokai Rubber Technology Co., Ltd. China China Tokai TIP Automobile parts (Shanghai) Co., Ltd.

China SumiRiko Industrial Products (Shanghai) Co., Ltd. Tokai Rubber International Logistics Shanghai Co., Ltd. China

China Tokai Rubber (Jiaxing) Co., Ltd.

China Tokai Rubber Technical Center (China) Co., Ltd.

China Tokai Rubber (Guangzhou) Co., Ltd. China Tokai Rubber (Dongguan) Co., Ltd. China Tokai Rubber Industries (H.K.) Ltd.

China Daeheung SumiRiko Rubber Material (Yancheng) Co., Ltd.

China KTS High-Tech Rubber Co., Ltd.

South Korea Daeheung R & T Co., Ltd.

SumiRiko Yamagata Company Limited Tokai Chemical Industries, Ltd. Sumitomo Riko Hosetex, Ltd. SumiRiko Metex Company Limited SumiRiko Engineering Company Limited SumiRiko FC Seal, Ltd. SumiRiko Creates Company Limited

SumiRiko Logitech Company Limited

SumiRiko Information Systems Company Limited SumiRiko Joyful Company Limited SumiRiko Corporation SumiRiko Oita Advanced Elastomer Company Limited SumiRiko Kyushu Company Limited Tokai Chemical Kyushu, Ltd. Taiyo Rubex Co., Ltd.

China and South Korea

Asian countries

*Companies are as of June 2020

Sumitomo Riko America, Inc. United States SumiRiko Technical Center America, Inc.

SumiRiko Ohio, Inc. United States SumiRiko Tennessee, Inc. United States

S-Riko Automotive Hose de Chihuahua, S.A.P.I. de C.V. Mexico S-Riko Automotive Hose Sales Chihuahua, S. de R.L. de C.V. Mexico

S Riko Automotive Hose Tecalon Brasil S A

Mexico S-Riko de Querétaro, S.A.P.I. de C.V. Brazil SumiRiko do Brasil Indústria de Borrachas Ltda. Brazil S Riko Automotive Hose Holding Brasil Ltda. Brazil S Riko Automotive Hose do Brasil Ltda.

Sahashi Industries Co., Ltd

Asian I India India Vietnam

Thailand

Tokai Rubber Auto-Parts India Pvt. Ltd. SumiRiko Hose Vietnam Co., Ltd. Thailand Sumitomo Riko (Asia Pacific) Ltd. Thailand Inoac Tokai (Thailand) Co., Ltd.

Tokai Imperial Rubber India Pvt. Ltd. Tokai Imperial Hydraulics India Pvt. Ltd.

SumiRiko Eastern Rubber (Thailand) Ltd.

Thailand SumiRiko Rubber Compounding (Thailand) Ltd. Thailand SumiRiko Chemical and Plastic Products (Thailand) Ltd.

Thailand SumiRiko Fine Elastomer (Thailand) Ltd.

Indonesia PT. Tokai Rubber Indonesia

Europe

and Africa

Indonesia PT. Tokai Rubber Auto Hose Indonesia

Indonesia PT. Fukoku Tokai Rubber Indonesia

The Americas

Global network

Global Network

Countries

With the changing development environment and manufacturing systems of our customers, particularly automobile manufacturers, there is a growing need for a stable supply of goods with a unified quality around the world.

In response to these market needs, the Sumitomo Riko Group is actively expanding on a global scale.

We are developing products and maintaining supply systems at five different axes around the world in order to establish ourselves as a global system supplier. We currently do business in more than 20 countries worldwide.

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Fuii-Susono Plant

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