NEWS RELEASE

December 8, 2025

To all Members of the Press

Refinverse Group, Inc.
Inabata & Co., Ltd.

World's First Material Recycling of Composite Automotive Interior Materials

– Recycled Asphalt Modifier "REOCA" to Launch Sales in December –

Refinverse Group, Inc. (Head Office: Chiyoda-ku, Tokyo; President: Akira Ochi; hereinafter "Refinverse Group") has successfully developed a new recycled material, "REOCA" (RE = REFINVERSE, OCA = Optimized Compound for Asphalt), created through material recycling of trim scraps generated during the cutting of automotive interior materials. Sales of REOCA will begin on Monday, December 8.

■ Background of Development

During the manufacturing of automotive interior components, trim scraps inevitably arise when materials are cut into shapes specific to each vehicle model. Globally, an estimated 140,000 tons of such scraps are generated each year, including approximately 16,000 tons in Japan alone (Refinverse research). Most of this waste has traditionally been disposed of via thermal recovery (incineration with heat recovery).

Because automotive interior materials are composite structures made from

multiple combined materials, separating and recovering each component is extremely difficult. As a result, these scraps have long been regarded as "hard-to-reuse waste."

Refinverse Group has been engaged in circular economy initiatives across various industries for more than 20 years. In collaboration with Toyota Boshoku Corporation, we have been exploring recycling technologies for automotive interior materials. With further support from our shareholder Inabata & Co., Ltd., with whom we have strengthened ties through equity partnership, we successfully developed the world's first※1 technology to material-recycle automotive interior scraps into an asphalt modifier.

By giving new value to resources previously destined for disposal, this innovation creates a broad "Car to Car" circular pathway—linking automotive interiors to the roads of the future.

■ Key Features of the Asphalt Modifier "REOCA"

• Durability approximately 2.3× higher than conventional asphalt

Compared to general asphalt, REOCA-modified asphalt improves durability by about 2.3 times, extending pavement lifespan and reducing repair frequency and maintenance costs. It also addresses key environmental challenges, such as lowering tire-road wear particles (TRWP) and mitigating road surface temperature increases through improved water retention. (Figure 1)

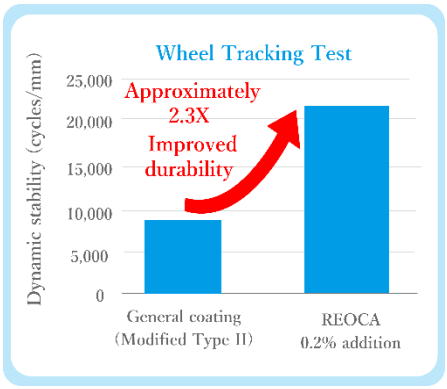

Figure 1

• Broad "Car to Car" Circularity with Significant CO_2 Reduction

Shifting automotive interior scrap treatment from thermal recovery to material recycling reduces CO_2 emissions

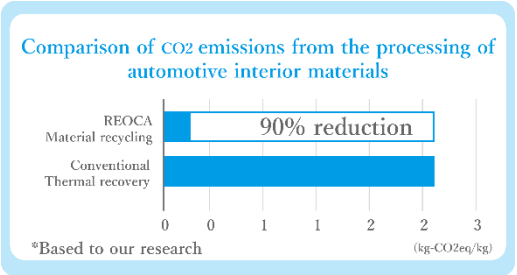

Figure 2

by approximately 90%※3 (Figure 2). Furthermore, using REOCA in asphalt production enables an additional approx. 40% CO_2 reduction※4 compared with virgin-derived modified asphalt (Figure 3).

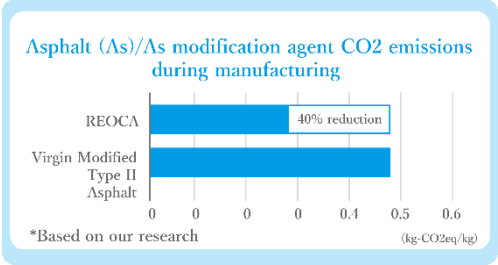

Figure 3

Through these benefits, REOCA serves as a next-generation paving solution that addresses both resource circulation and infrastructure challenges, with potential applications across a wide range of environments and use cases.

■ Demonstration Construction in Parking Lot

In March 2025, Refinverse Group conducted a demonstration paving project at its Ichinomiya Plant, using asphalt mixed with REOCA (Figure 4). We continue to evaluate performance under real-world usage conditions. After six months, no deformation or cracking has been observed, confirming the material's excellent pavement performance.

Figure 4. Paving Work at the Ichinomiya Plant

■Future Outlook

We plan to expand applications of REOCA to paving for retail facilities, factories, logistics hubs, and beyond. Additional technical development will further broaden its potential uses and promote the wider recycling of automotive interior materials.

In addition, we will deepen our collaboration with Toyota Boshoku, using this project as a foundation to accelerate broader resource circulation initiatives.

Refinverse Group will continue contributing to the resolution of social challenges and the realization of a circular economy through sustainable material development and innovative recycling technologies.

■ **About Refinverse Group, Inc.**

For over two decades, Refinverse Group has been committed to the principles of a circular economy. We focus on reclaiming and developing sustainable materials, including Refine Powder, a recycled material for horizontal recycling of carpet tiles, and REAMIDE®, a high-quality nylon pellet recycled from waste fishing nets and car airbags. In 2023, we expanded our efforts by launching a new biomaterial, ReFEZER®, developed from bird feathers.

【Press Inquiries】
Corporate Planning Department, Refinverse Group, Inc.
E-mail: pr@r-inverse.com　(Public Relations: Ms. Nishikawa)