CO_2 Emission Control Technology(WMA)
Bubble Mixing System
(Asphalt and Rejuvenator Foaming Technology)

Technologie de réduction des émissions de CO_2
Système Bubble Mix
(Technologie de moussage pour l'asphalte
et les agents de régénération)

Foamed asphalt

Rejuvenator additive finely foamed by a air plus system

Overview

Single Bubble
A new asphalt mixture is produced using a mechanical asphalt foaming system in which pressurized water is injected into the asphalt to create foam.

Twin Bubble
The production of recycled mixtures is carried out using foamed asphalt and our proprietary Air Plus System.
The Air Plus System is an innovative technology that uses air-forming techniques to create micro-bubbled recycling additives.

[Features]

I. The mixture is easy to handle even at low temperatures, thereby improving workability.
II. Sufficient compaction can be achieved even when the temperature drops during winter or due to long-distance transport.
III. Lowering production temperatures in summer improves the working environment and allows roads to open to traffic sooner.
IV. The adoption of Warm Mix Asphalt (WMA) also contributes to reducing CO_2 emissions.

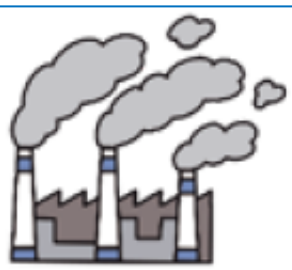
Contribution to SDGs

Workability and quality improvement

Production temperature decrease in summer

Earlier opening to traffic

CO_2 emission reduction



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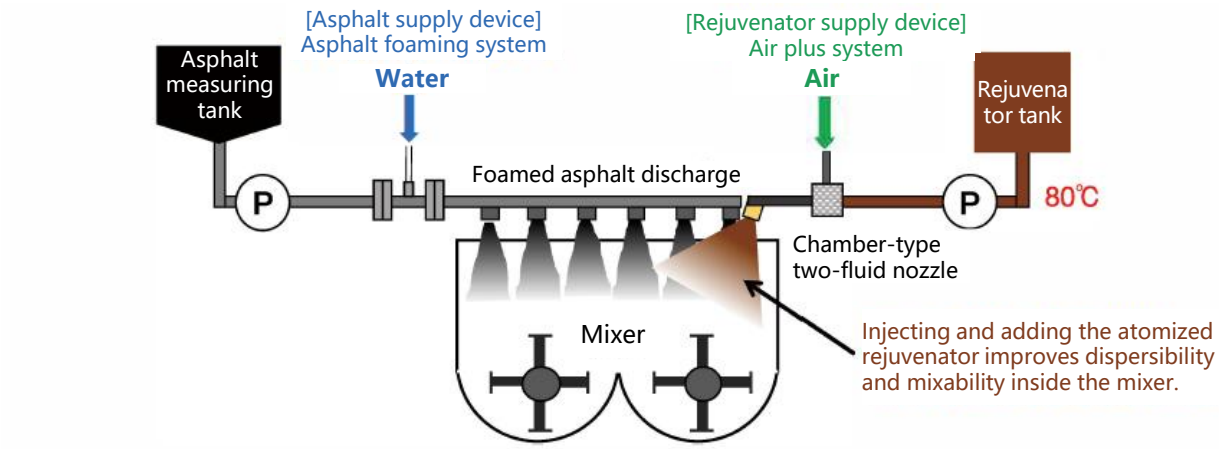
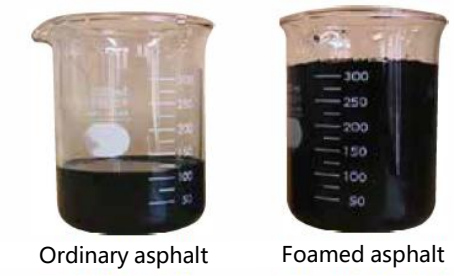
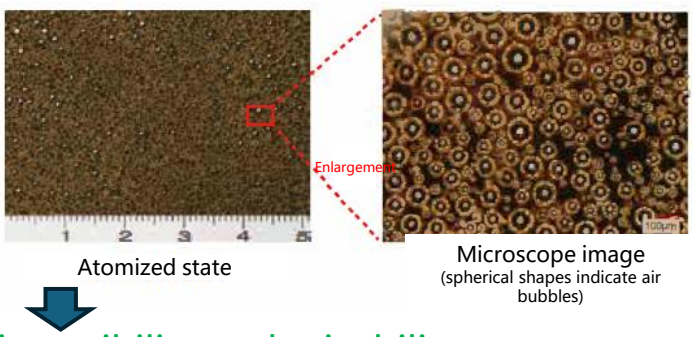
Overview of the production system



Foamed asphalt
(Volume expansion due to foaming)

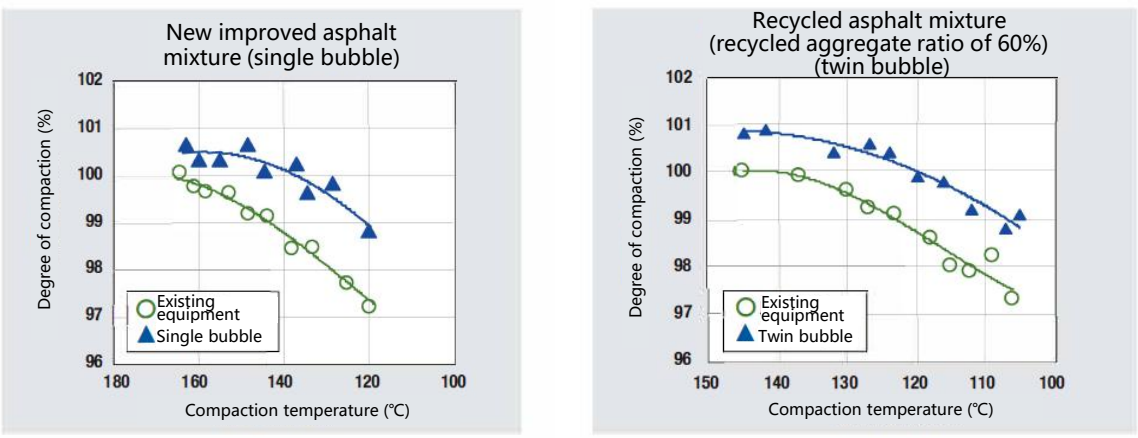


Foamed rejuvenator additive
(Micro-bubbled)



Bubbles improve dispersibility and mixability

Performance of the mixture produced through the bubble mixing system (Example)



Both new and recycled mixtures can achieve the required degree of compaction even when the temperature is reduced by 20℃.

CO_2 emission reduction effect

Lowering the mixture production temperature by about 20℃ results in approximately 15% reduction.

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High-Durability Pavement

(Anti Kerosene and Durability-AKD Pavement)

Asphalt Pavement Enhanced with Special Additive

Revêtement à haute durabilité (AKD)

Revêtement routier en asphalte avec additif spécial

Resilience

Overview

AKD Pavement is a pavement that enhances flow resistance, oil resistance, and torsional resistance by incorporating "special additives" into conventional asphalt pavement.
It can be easily manufactured in regular asphalt plants and can be applied using standard asphalt paving techniques.

[Features]
A high-durability pavement with performance comparable to semi-flexible pavement

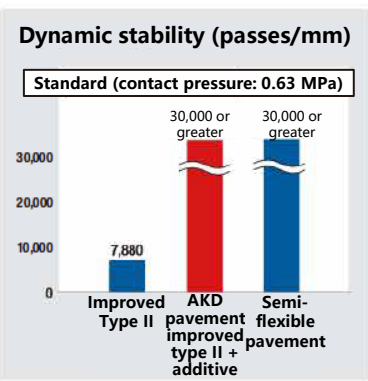
I. High resistance to rutting deformation under heavy loads.
II. High resistance to cutback by oil (Oil leakage etc.).
III. High resistance to torsional stresses caused by vehicle movements at intersections.

■Applicable locations

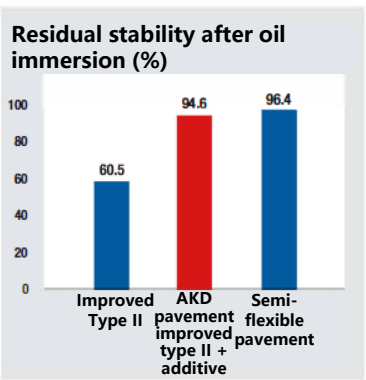
- Heavy-traffic roads, intersections, and parking lots requiring deformation resistance
- Locations requiring oil resistance
- Locations requiring torsional resistance

■Performance evaluation (Example)

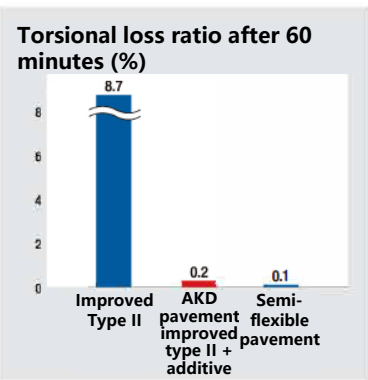
Deformation resistance



Oil resistance



Torsional resistance



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High-Durability Pavement
(Super Strong Surface-SSS Pavement)
Semi-flexible Pavement
Revêtement à haute durabilité (SSS)
Revêtement semi-flexible

Resilience

Overview

This full-penetration semi-flexible pavement combines the flexibility of asphalt pavement with the stiffness of concrete pavement by injecting and hardening SSS cement grout into the voids of a special asphalt mixture. Coloring can be applied to enhance aesthetics and provide a light-colored surface.

Surface finish of SSS pavement

[Features]

I. It has excellent resistance to deformation and offers superior durability, oil resistance, and heat resistance compared with conventional asphalt pavement.
II. Compared with conventional asphalt pavement, it allows longer repair cycles, thereby reducing life-cycle costs.
III. Compared with concrete pavement, it can shorten construction periods and reduce initial costs.

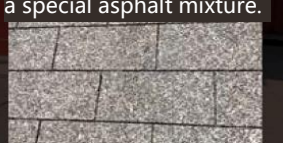
■Applicable locations

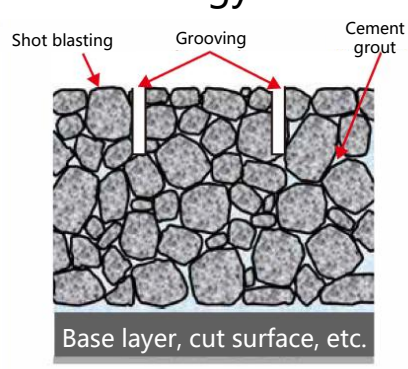
- Heavy-traffic roads, intersections, and parking lots requiring deformation resistance
- Locations requiring oil resistance
- Locations requiring torsional resistance
- Locations requiring aesthetics and harmony with the surroundings

[Groove Blast] Aesthetic pavement using SSS technology

Overview

It is a semi-flexible aesthetic pavement finished with a natural stone–like texture by applying shot blasting and grooving to the surface of a full-penetration semi-flexible pavement (SSSpavement), in which SSS cement grout is injected and hardened in the voids of a special asphalt mixture.





Shirakawa City, Fukushima Prefecture

Chiyoda-ku, Tokyo

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