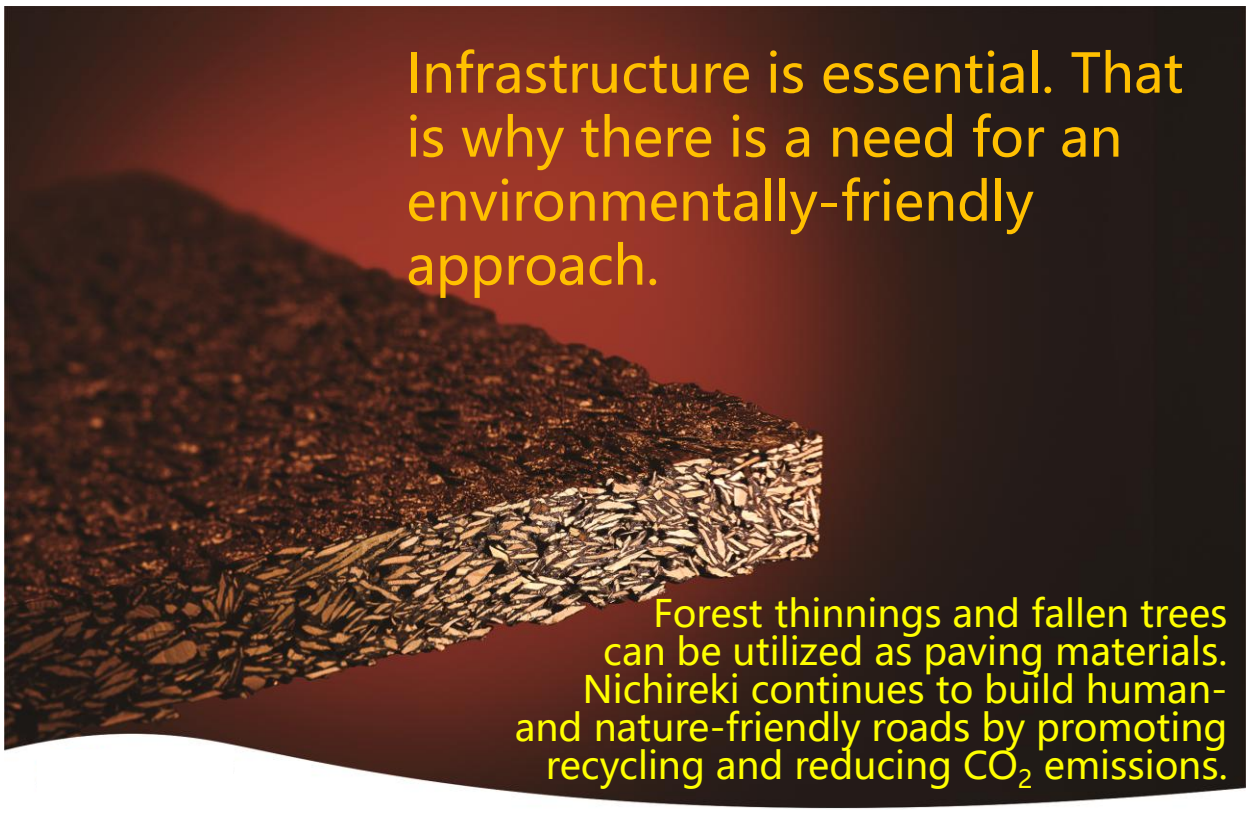
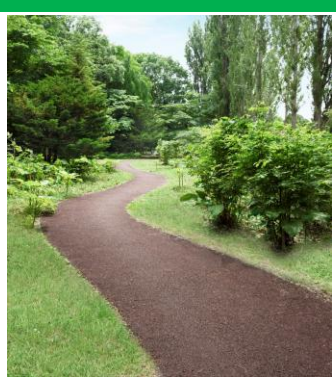
ASWOOD PAVING

Revêtement Aswood



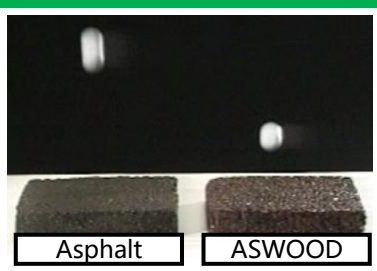
Overview

- ASWOOD PAVING is cold-mix pavement composed of wood chips and rubber-modified asphalt emulsion.
- ASWOOD PAVING can use wood chips made from tinned wood as the main material.
- ASWOOD PAVING is great for the environment thanks to cold-mix paving, higher water permeability and the use of recycled materials.
- ASWOOD PAVING is also great for people, providing excellent cushioning with elastic materials.

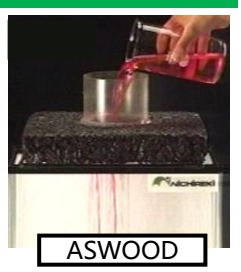


Features

- Cushioning ensures walking comfort.
- Higher water permeability means no puddles.
- It is excellent for energy conservation and environment preservation thanks to cold mixing and the use of recycled materials.



Cushioning characteristics



Water permeability

Applicable areas

- Walkways, garden paths, cycling roads, etc.
- Internal paving for various places, such as care houses, schools and stations.

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SUPER SHINAYAKAPHALT

SUPER SHINAYAKAPHALT

Overview

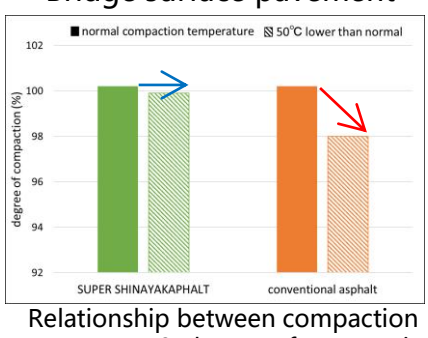
- SUPER SHINAYAKAPHALT is a polymer-modified asphalt with reduced temperature during mix production, and has high fatigue resistance that offers a longer service life.
- SUPER SHINAYAKAPHALT has excellent long-term resistance to cracks, ruts, and loss of flatness.

Features

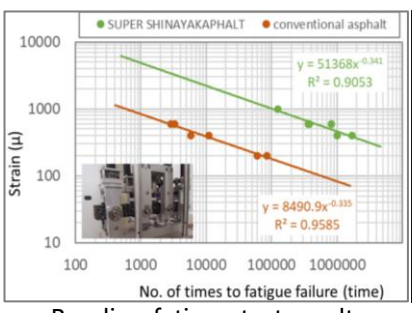
- Construction temperature can be reduced by approximately 50°C compared to conventional modified asphalt.
- Hot mix can be transported to distant place because it can be compacted even at low temperatures.
- It has higher fatigue and crack resistance than conventional modified asphalt.
- Using SUPER SHINAYAKAPHALT is expected to further reduce CO_2 emissions by extending pavement life and reducing the need for repairs.

Applicable areas

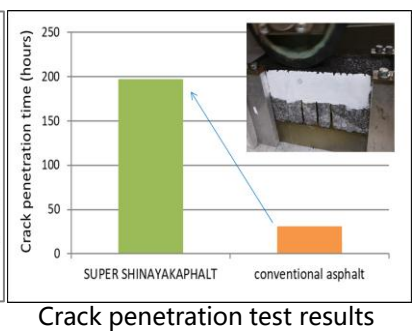
- Pavement with significant damage at high strain in roadbed and base course
- Pavement with significant damage due to cracking
- Bridge surface pavement



Relationship between compaction temperature & degree of compaction



Bending fatigue test results



Crack penetration test results

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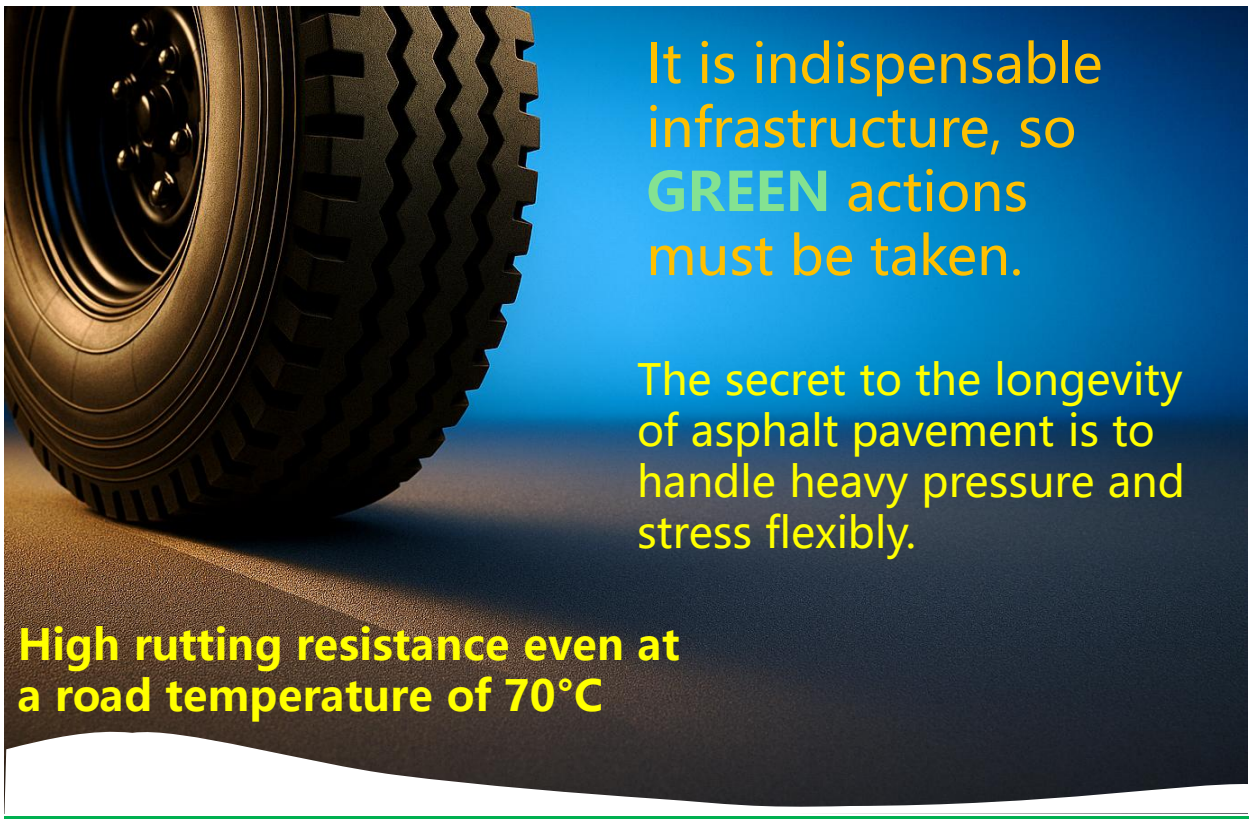
SUPER CONTAINERPHALT

SUPER CONTAINERPHALT



Overview

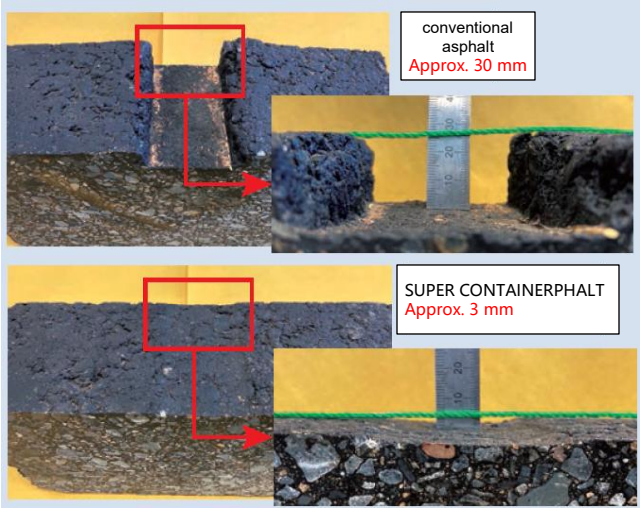
- SUPER CONTAINERPHALT is a polymer-modified asphalt mixture that exhibits extremely high resistance to plastic deformation even for specialized applications such as airport and port pavements where heavy-load vehicles frequently operate.
- SUPER CONTAINERPHALT contributes to CO_2 emission reduction because its paving mixtures can be manufactured and placed at temperatures 30°C lower than conventional mixes.

Features

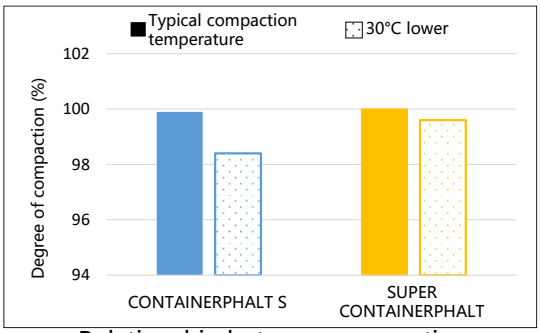
- SUPER CONTAINERPHALT exhibits extremely high resistance to plastic deformation and excels in withstanding low-speed operation of heavy-load vehicles.
- Calculation assuming a life cycle of 50 years shows that carbon dioxide emissions can be reduced by about 44%.

Applicable areas

- Pavements at airports and ports where extremely heavy-load vehicles—such as aircraft, cargo vehicles, and special-purpose forklifts—operate at low speeds, far exceeding the loads of typical large road vehicles



Settlements observed in wheel tracking test



Relationship between compaction temperature & degree of compaction

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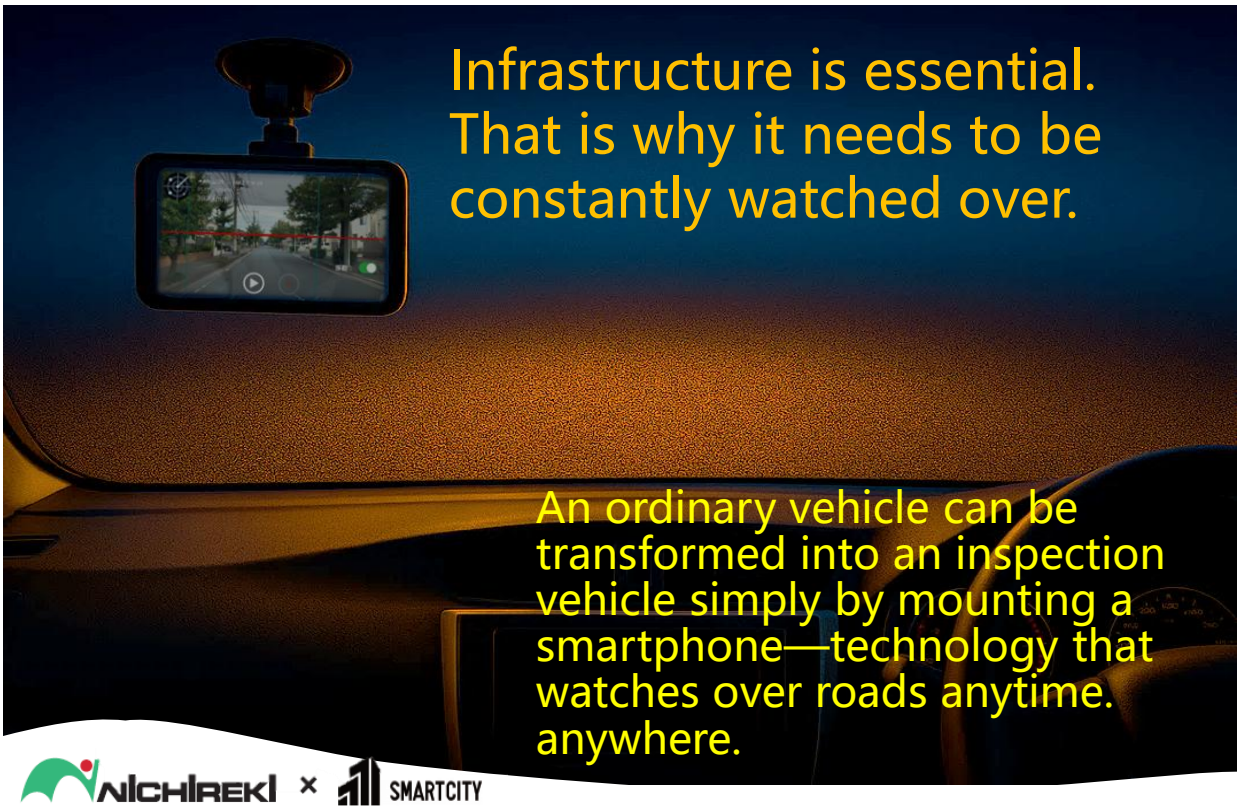
GLOCAL-EYEZ

GLOCAL-EYEZ



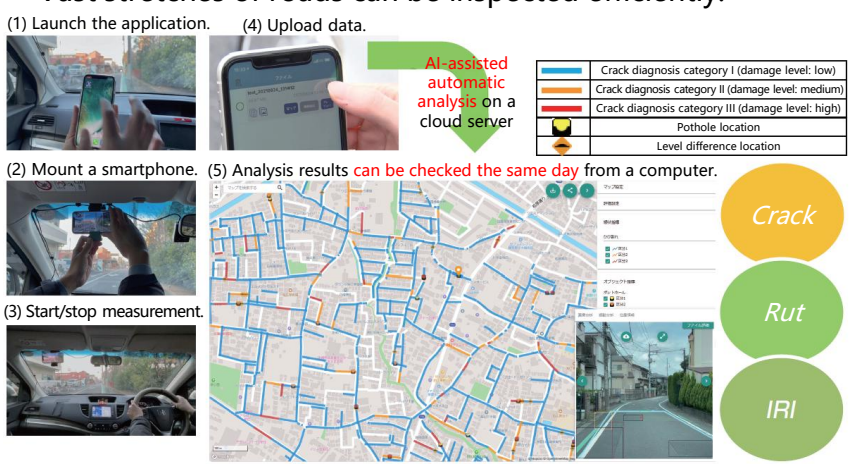
NICHIREKI × SMARTCITY

Overview

- GLOCAL-EYEZ makes it possible to check paved surfaces for signs of damage, such as cracks and level differences, by capturing images of paved roads with a smartphone mounted on an ordinary vehicle.
- GLOCAL-EYEZ is a DX-ready road management technology that integrates digital technologies including Internet communication and AI. With just a smartphone and a vehicle, anyone can perform low-cost inspections anytime, anywhere while supporting everything from day-to-day road management to the selection of repair methods.

Features

- Anyone can easily perform inspections simply by mounting a smartphone to an ordinary passenger car.
- Inspection data can be transmitted from the smartphone for AI analysis, with inspection results available in approximately one hour.
- Inspections can detect pavement problems, including cracks, potholes that hinder safe driving and level differences that often lead to complaints from road users and residents.
- Vast stretches of roads can be inspected efficiently.



Flow from inspection to analysis

Early detection of potholes during the snowmelt season

* GLOCAL-EYEZ is a smartphone-based road inspection DX system developed by integrating Nichireki's pavement management and repair technologies with the AI-assisted road surface assessment logic developed by Prof. Tomonori Nagayama, Graduate School of Engineering, The University of Tokyo, and the AI and system technologies developed by SmartCity Research Institute, Co., Ltd.

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