ECO-Foamed

Warm-Mix Asphalt (WMA) with Foamed Asphalt

ECO-Foamed

Enrobé tiède (WMA) à asphalte expansé

What is foamed asphalt?

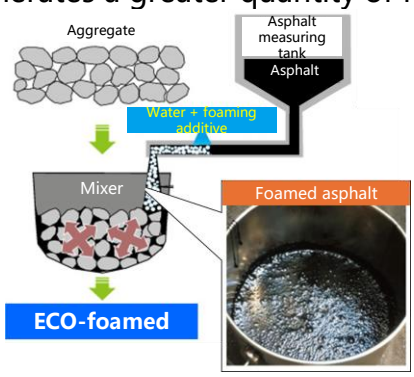
- A technology that foams asphalt by generating fine foam through the injection of a small amount of water into the asphalt.
- The bearing effect of fine foam reduces the viscosity of asphalt, enabling the production temperature to be lowered.
- Lower production temperatures reduce fossil fuel consumption, thereby reducing CO_2 emissions.

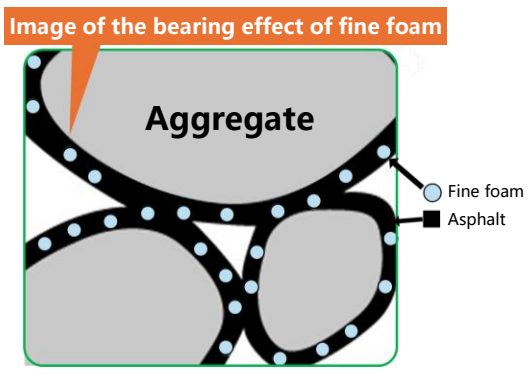
Asphalt (before foaming)

Foamed asphalt (after foaming)

Features of ECO-Foamed

- An asphalt mixture produced by combining foamed asphalt with a foaming additive.
- Generates a greater quantity of finer foam than conventional foamed asphalt.





Effects

- Lowers the asphalt mixture production temperature by approximately 20-30℃, reducing fossil fuel consumption and thereby decreasing CO_2 emissions.
- Ensures the required quality of both new and recycled asphalt mixtures, even when the production and paving temperatures are reduced.
- Reduces radiant heat from asphalt mixtures and the generation of asphalt fumes during paving work, thereby improving workers' safety, health, and working conditions.
- Shortens traffic control time, thereby reducing traffic congestion.

Demonstration test example

Location	Private factory premises in Kanagawa Prefecture, Japan
Construction period	July 2022
Mixture type	Recycled dense grain asphalt mixture (13) R60%
Temperature reduction during production	Approximately 25℃
Marshall density	2.412 g/cm^3
Density of cored specimens	2.374 g/cm^3 (98.4%)

NIPPO CORPORATION
https://www.nippo-c.co.jp/en/