



GRANTED

(IN454760)

Bio-based encapsulated bitumen pellets and method of preparing the same

NEED

Bitumen, used in road construction, is often non-biodegradable and environmentally harmful. What if there was a way to make bitumen more eco-friendly and efficient for construction purposes?

TECHNOLOGY OVERVIEW

This technology offers bio-based encapsulated bitumen pellets, combining bitumen with an agar-based, biodegradable encapsulation. The pellets improve the sustainability of bitumen products while maintaining performance for construction applications.

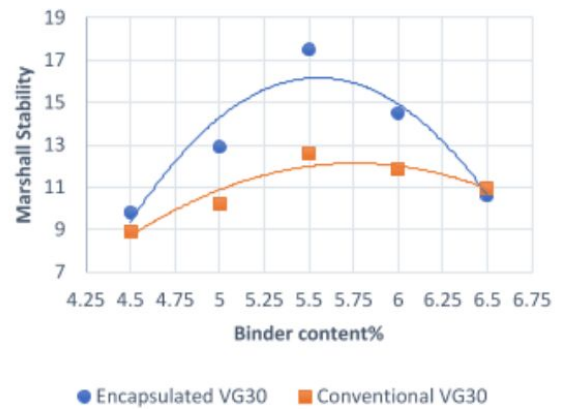
TECHNOLOGY KEY FEATURES

Agar-based encapsulation; 80-89% water; sorbitol (8-12%), glycerol (1-3%); pellet diameter: 23-27 mm; thickness: 0.1-0.2 mm; drying time: 5-6 minutes.

[Read more here](#)

Technology is available for licensing/ co-development.

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MARKET ANALYSIS

The global bio-based materials market is projected to grow at a CAGR of 9.2% from 2023 to 2033, driven by the increasing demand for sustainable construction and eco-friendly materials. (Source: Grand View Research 2023)

Target Industries

1) Road construction and infrastructure companies seeking sustainable materials; 2) Environmental engineering firms focusing on biodegradable solutions; 3) Manufacturers of eco-friendly construction additives and products.

AT A GLANCE

- SDG 9 (Industry, Innovation), SDG 12 (Responsible Consumption), SDG 13 (Climate Action)

