



विज्ञान एवं प्रौद्योगिकी विभाग DEPARTMENT OF **SCIENCE & TECHNOLOGY**



GRANTED

(IN454350) Method of and apparatus for determining sorption characteristics of concrete



NEED

In the construction industry, accurate sorption testing of materials like concrete is crucial for ensuring durability. What if there was a more efficient and automated method for testing sorption characteristics, speeding up material validation?

TECHNOLOGY OVERVIEW

This technology introduces an integrated apparatus and method for determining the sorption characteristics of concrete and other materials. It uses a carousel mechanism for multiple samples, vertical movement for precise immersion in fluid, and automated weight data collection over time.

TECHNOLOGY KEY FEATURES

1) Carousel mechanism for testing multiple samples. 2) Vertical movement assembly for precise sample immersion. 3) Automated weight monitoring for sorption analysis. 4) Controls temperature and immersion time. 5) Improves efficiency in testing concrete and other porous materials.

MARKET ANALYSIS

The global construction materials testing market is expected to grow at a CAGR of 6.3% from 2023 to 2033, driven by increasing infrastructure projects and demand for quality testing. (Source: Market Research Future)

Target Industries

1) Construction material testing firms focused on quality and durability testing. 2) Construction companies requiring efficient material testing for new projects. 3) Research institutions developing advanced materials and testing methodologies.

AT A GLANCE

 SDG 9 (Industry, Innovation, and Infrastructure), SDG 11 (Sustainable Cities and Communities)

Read more here

Technology is available for licensing/ co-development. Reach out to Prof. Deepak Chitkara, Coordinator, BITS Technology Enabling Centre, BITS Pilani Contact Details: tec.bits@pilani.bits-pilani.ac.in, 91 1596-255913

