

Case Study: Accelerating Innovation in Self-Healing Asphalt: How Swansea University's ABM-Lab Transformed Research with IKA Solutions



Introduction

Swansea University Advanced Bituminous Materials Laboratory (ABM-Lab), located at the Bay Campus in Swansea, Wales, is a growing research team focused on biobased emulsions and bituminous materials. Led by Dr. Jose Norambuena-Contreras, the lab is pioneering innovations in self-healing asphalt technologies.

Challenges

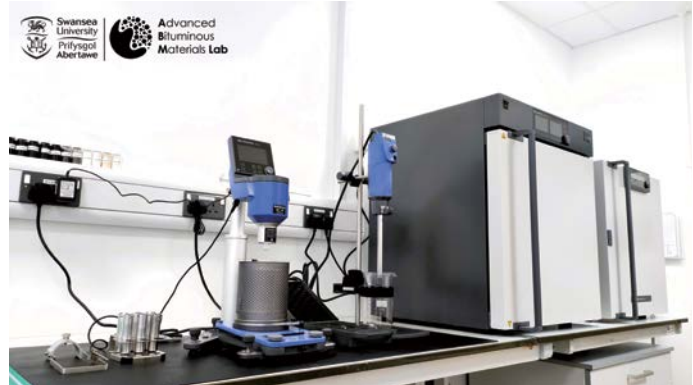
"Our lab required equipment capable of preparing stable biobased emulsions, measuring their viscosity, and thermally conditioning them for use in self-healing asphalt applications."



designed for scientists

Solution

"We implemented a T18 digital ULTRA-TURRAX® system for the preparation of high-speed emulsions, a rotational viscometer with ROTATEMP up to 300 °C for viscosity measurement of viscous fluids, and an IKA OVEN 125 control along with an INC 125 F digital incubator for the thermal conditioning of bituminous materials."



Results

"Emulsions with enhanced stability and reduced creaming, precise viscosity measurement over a wide temperature range, and reliable thermal conditioning of critical samples."

Summary Quote & any future plans /collaborations

"IKA's equipment has transformed our workflow. We can now obtain results more quickly and with greater confidence, supporting our research projects."



Researcher

Dr Jose Norambuena-Contreras

Senior Lecturer in Civil Engineering
Head of the Advanced Bituminous Materials Laboratory
(ABM-Lab)

Email: j.norambuena@swansea.ac.uk

IKA-Werke GmbH & Co. KG

Janke & Kunkel-Straße 10, 79219 Staufen, Germany
Phone: +49 7633 831-0, sales@ika.de, www.ika.com

