## Abstract Renewable Material Conference 2026

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**Enosis® by Lactips: leveraging biodegradability to deliver high-performance bio-based materials for plastics applications**

Growing regulatory pressure and environmental concerns related to plastic leakage are driving the development of materials combining functional performance with controlled end-of-life scenarios. Enosis® is a range of bio-based materials designed to address these challenges by integrating intrinsic biodegradability compatible with conventional plastic processing technologies.

Based on natural polymer technology, Enosis® grades offer high bio-based content and are engineered to biodegrade efficiently under specific environmental conditions, including home composting and soil environments (ISO 14855-1 and EN 17033).

From a processing perspective and to facilitate industrial adoption, Enosis® materials are designed as ready-to-use compounds compatible with conventional thermoplastic processing techniques, including injection moulding and extrusion. Depending on the formulation, the material properties can be tuned to balance bio-based content, biodegradation profile and mechanical performance. For example, the six grades of the Enosis range offer a Young's Modulus spanning from 200 to 1400 MPa, with elongation at break ranging from 3% to 300%. This diversity allows us to meet a wide variety of application needs.

This presentation will provide an overview of the material design strategy behind Enosis®, including formulation approaches and processing considerations. It will also present experimental data on biodegradation performance and discuss application opportunities in sectors where plastic dispersion in the environment represents a critical challenge, such as agriculture, horticulture and outdoor equipment.