BioPhenom

About Nordtreat

Nordtreat is a Finnish company founded in 2015, specializing in the development of environmentally friendly flame retardants, especially for wood and wood based products. With a mission to make sustainable construction safer, the company provides eco-friendly treatments that enable the widespread use of wood in modern architecture without compromising fire safety or design quality. Nordtreat's products are water-based, non-toxic fire retardants that enhance the fire resistance of wood while preserving its natural beauty, meeting the highest European fire classification standards. Sustainability is at the core of Nordtreat's operations, with continuous innovation aimed at reducing environmental impact and supporting the safe use of wood in residential, commercial, and public buildings across Europe. Driven by a vision to combine safety, aesthetics, and environmental responsibility, Nordtreat has established itself as a trusted partner for architects, builders, and wood product manufacturers throughout Europe. Through close collaboration with industry leaders, the company continues to support innovative solutions that advance the global transition to sustainable building practices.

Role in BioPhenom

As a partner in the BioPhenom project, Nordtreat brings its expertise in sustainable surface treatment solutions to a collaborative effort focused on replacing harmful petrochemicals with bio-based alternatives. The project leverages biophenols extracted from industrial biomass side streams or forest biomass to create safe and recyclable materials, promoting a circular bioeconomy. Towards the project goals, Nordtreat is developing anti-leach topcoats based on binders, preferably bio-based. These topcoats are designed to prevent leaching of fire retardants from treated wood products while providing additional benefits such as enhanced durability, UV protection, and hence improved weather resistance.

How will the BioPhenom project make Europe more sustainable?

The BioPhenom project aims to contribute to a more sustainable Europe by replacing conventional petrochemical-based materials with bio-based alternatives. Using biophenols extracted from industrial and forest biomass sidestreams, the project seeks to develop safe, recyclable materials that support a circular bioeconomy and help lower the carbon footprint across multiple industries. A key focus is ensuring that bio-based phenolic compounds and related materials meet essential performance standards—such as mechanical strength, flame-retardant properties, and processability—for targeted industrial use. By developing and validating high-performance bio-based solutions across diverse applications, BioPhenom will support the shift towards sustainable materials in European industry, reducing reliance on fossil-based resources and fostering innovation in the green economy.

NORDTREAT

NORDTREAT RESEARCHERS

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