

P-LIFE-TREATED PP DEGRADED BY SOIL MICROBES FOUND IN SCHOOL GROUNDS

A collaborative research team including P-Life Japan Inc., Keio University, ITO EN, and SI Resin Industries has discovered microorganisms in elementary school soil capable of breaking down P-Life-treated polypropylene (PP) plastic straws.

The project took place at Nishikamakura Elementary School as part of a government-backed sustainability initiative, blending science, education, and environmental innovation.

KEY FINDINGS

- Soil microbes were able to degrade PP straws enhanced with P-Life
- The decomposition left visible breakdown marks on the plastic
- Multiple strains of bacteria were successfully isolated and studied
- The microbes also showed potential to degrade P-Life-enhanced PE

WHY THIS MATTERS FOR THE INDUSTRY

- Works with widely used plastics (PP & PE)
- Validated by scientific, educational, and industrial partners
- Real-world application tested in natural soil environments
- Supports goals of a circular and upcycled society

"This is a significant breakthrough in proving that polypropylene, one of the most persistent plastics, can truly biodegrade in nature with the help of P-Life."

— Prof. Kenji Miyamoto, Keio University

