

CoatingSolution4U Expands AI Diagnostics to Plastic Recycling Industry

Company Successfully Completes PoC Consulting Project with DoWon Co., Ltd., Demonstrating PlasticXpert Technology's Impact on Recycled Plastic Quality

CA, UNITED STATES, October 15, 2025 / EINPresswire.com/ -- CoatingSolution4U Co., Ltd., a pioneering developer of [AI-based fluid diagnostic solutions](#), today announced the successful completion of a proof-of-concept (PoC) consulting project with DoWon Co., Ltd., a leading Korean plastic recycling company. This milestone marks the company's strategic expansion beyond battery manufacturing into the plastic processing industry with its PlasticXpert technology.

From Battery to Plastics: Expanding AI Diagnostic Applications

Following the recent launch of [SlurryXpert](#), the world's first AI-powered fluid diagnostics solution for battery electrode slurry, CoatingSolution4U has been actively working to extend its proven technology to additional industrial sectors. The company's AI-based fluid diagnostic platform, which achieves 95%+ accuracy in real-time monitoring, has now been successfully adapted for plastic manufacturing applications.

"PlasticXpert represents the natural evolution of our core AI diagnostic technology," said Prof. Kyung Hyun Ahn, CEO of CoatingSolution4U. "The same principles that enable precise monitoring of battery electrode slurry are equally powerful when applied to plastic processing, particularly in the recycling sector where material consistency is a critical challenge."

Addressing Plastic Recycling Challenges

The plastic recycling industry faces significant quality control challenges due to the inherent variability of recycled materials. Traditional quality assurance methods often result in inconsistent output quality and reduced yields, making it difficult for manufacturers to



HoonHo Cho, Research Developer at CoatingSolution4U, with the AI-powered PlasticXpert diagnostic solution for plastic recycling applications.

confidently use recycled plastics while maintaining product standards.

PlasticXpert applies CoatingSolution4U's proven AI-powered diagnostic technology to monitor and analyze plastic melt properties in real-time during processing. This enables manufacturers to:

- Detect material inconsistencies instantly during production
- Optimize processing parameters for improved quality
- Increase yield by reducing defects and waste
- Confidently work with recycled materials while maintaining quality standards

Strategic Partnership with DoWon Co., Ltd.

DoWon Co., Ltd., recognized as a promising player in Korea's plastic recycling sector, partnered with CoatingSolution4U to validate PlasticXpert technology through a comprehensive PoC consulting project. The collaboration focused on improving both the quality and yield of recycled plastic products through data-driven process optimization.

The successful completion of this project demonstrates PlasticXpert's practical value in real-world manufacturing environments and validates the adaptability of CoatingSolution4U's AI diagnostic platform across different industrial applications.

"This successful PoC with DoWon validates our belief that AI-powered fluid diagnostics can transform quality control across multiple industries," added Prof. Ahn. "The plastic recycling sector, in particular, stands to benefit enormously from technology that enables confident use of recycled materials without compromising quality."

Supporting Global Sustainability Goals

By enabling manufacturers to work confidently with recycled plastics while maintaining quality standards, PlasticXpert directly supports global sustainability initiatives. The technology helps close the loop on plastic waste by making recycled materials a more viable alternative to virgin plastics, supporting the circular economy while maintaining manufacturing profitability.

Market Expansion and Future Outlook

With SlurryXpert now available for battery manufacturing and PlasticXpert validated through successful PoC implementation, CoatingSolution4U is positioned to address fluid diagnostic needs across multiple manufacturing sectors. The company continues to explore additional applications of its AI-powered diagnostic platform in coatings, cosmetics, and other industries requiring precise fluid state monitoring.

CoatingSolution4U is actively seeking partnerships with manufacturers interested in implementing next-generation AI diagnostic solutions to optimize their production processes.

About CoatingSolution4U Co., Ltd.

Founded in 2023, CoatingSolution4U Co., Ltd. is a South Korean startup co-founded by Professor Kyung Hyun Ahn from Seoul National University and Professor Kyung Hyun Choi from Jeju National University. The company develops cutting-edge AI-based fluid diagnostic solutions for manufacturing quality control, combining deep academic research with practical industry expertise to deliver transformative technologies for the Industry 4.0 era.

For more information about PlasticXpert or SlurryXpert, or to discuss partnership opportunities, please contact inquiry@coatingsolution4u.com.

Aram Namgung
CoatingSolution4U Co., Ltd
+82 31-615-4200
aram@coatingsolution4u.com

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