Packaging

DOW, MACCHI, AND ITP TO UNVEIL NEW RECYCLABLE MONO-PE POUCH WITH OVER 50% CHEMICALLY RECYCLED CONTENT AT K 2025

A fully recyclable, food-grade mono-material pouch with high barrier properties to be showcased at K 2025.

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Three leading players in the flexible packaging value chain – **Dow (NYSE: DOW)**, **Macchi**, and **ITP** – have partnered to develop a groundbreaking **recyclable mono-PE pouch** containing **over 50% chemically recycled content**, aligned with industry recyclability guidelines and suitable for **food packaging** applications.

Designed for Circularity and Food Safety

This **prototype pouch** is made using **advanced recycling (chemical recycling)** and a **mass balance approach**, enabling the use of recycled plastic in demanding applications, such as **food contact packaging**, where traditional mechanical recycling often falls short.

By incorporating a high percentage of chemically recycled content, the solution helps reduce reliance on virgin materials while ensuring food-grade safety and protection against oxygen and moisture – key concerns in **food packaging design**.

Compliant with EU's Upcoming Recycled Content Mandates

The pouch anticipates upcoming EU **Packaging and Packaging Waste Regulation (PPWR)** targets, which will require a minimum of 10% recycled content in **plastic food packaging by 2030**. The project demonstrates how **high-performance recycled materials** can be integrated into flexible packaging without compromising performance, safety, or processability.

Collaboration Across the Value Chain

- **ITP (Industria Termoplastica Pavese S.p.A.)**, an Italian specialist in **PE film extrusion** for food and industrial packaging, led the film selection, digital printing, lamination, and pouch forming.
- **Macchi**, a pioneer in **blown film extrusion technologies**, supplied the multilayer extrusion line capable of processing complex mono-material structures with excellent thickness control and downgauging capabilities.