



WPS Insights

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WPS Insights – July 2025

This July'25 edition of WPS Insights brings together five developments shaping the future of packaging across sustainability, material innovation, and regulatory alignment.

From PET film innovations in food and pharma to plant-based alternatives in personal care and transparent biodegradable paperboard, the packaging industry is evolving rapidly. These stories reflect the urgency for resilient, compliant, and circular solutions across global markets.

This month's edition highlights actionable shifts for packaging leaders looking to stay ahead of regulatory curves, material transitions, and sustainability benchmarks.

UFlex Unveils Single-Pellet rPET Breakthrough for Food Packaging A new approach to food-grade recycling and manufacturing efficiency

UFlex Ltd has launched a single-pellet solution that blends recycled and virgin PET into one, eliminating the need for mixing during manufacturing. The product is compliant with FSSAI guidelines and addresses Extended Producer Responsibility mandates. With regulatory approvals from both FSSAI and the USFDA, the solution supports scalable rPET adoption for food and beverage applications. UFlex is also investing in two new recycling facilities in Noida, reinforcing its position in plastic



What's Shaping the Shift

- Combines recycled and virgin PET in a single pellet
- Compliant with FSSAI and USFDA food safety guidelines
- Supports EPR and scalable sustainable packaging
- Infrastructure expansion with new plants in Noida
- Active recycling operations across India, Poland, Egypt, and Mexico

Lessons and Actionables

Blended pellet formats may unlock new efficiencies and compliance pathways in food-grade rPET adoption across geographies. Explore the integration of single-pellet rPET solutions to simplify food packaging compliance and scale sustainable formats.

Honeywell and Evertis Advance Recyclable Barrier Film for Pharma Barrier integrity and recyclability combine in new PET-grade format

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What's Shaping the Shift

- Combines PET and Aclar for recyclable, high-barrier pharma packs
- Aclar offers proven moisture protection and durability
- Application targets drug stability and patient safety
- Launch planned later this year under Evercare
- Aligns with sustainability goals for healthcare packaging

Lessons and Actionables

Recyclable barrier films can redefine pharmaceutical packaging without compromising regulatory or performance standards. Review packaging innovations in pharma segments that align with recyclability and barrier compliance simultaneously.



Rice Husk Material Redefines Beauty Packaging Sustainability

Bio-based alternative shows lower impact, higher efficiency

Oryzite, a material derived from rice husks, is being explored as a sustainable alternative in beauty packaging. A life cycle assessment of various blends shows that a 50-50 mix with PP delivers the best environmental performance. In higher ratios with biodegradable polymers like PHA, the blend becomes compostable. Recycling remains the most eco-efficient end-of-life path across compositions.

What's Shaping the Shift

- Oryzite sequesters 1.58 kg CO₂ per kg of packaging
- 50-50 PP-Oryzite blend identified as most eco-efficient
- 60-40 Oryzite-PHA blend is biodegradable and compostable
- Bioplastics reduce plastic use and improve recyclability
- Addresses demand from eco-conscious personal care consumers

Lessons and Actionables

Agricultural by-products can anchor the next generation of beauty packaging with tangible carbon and material savings. Assess the compatibility of bio-based fillers like Oryzite in personal care and lifestyle packaging formats.



Transparent, Biodegradable Paperboard Emerges from Japan

New cellulose-based packaging degrades at sea and holds heat

Researchers in Japan have developed a transparent paperboard (tPB) made from cellulose that is recyclable, biodegradable, and marine-safe. It performs well under heat, can hold boiling water, and retains strength even when wet. Though costlier than conventional paper, its circular lifecycle and ability to biodegrade at deep-sea depths position it as a long-term alternative to single-use plastics.

What's Shaping the Shift

- Derived from cellulose waste, including fabric, paper, and wood
- Fully recyclable in closed-loop systems
- Emission profile is 50 percent lower than plastics
- Biodegraded at a 757-meter ocean depth
- Can replace single-use plastic in marine-sensitive regions

Lessons and Actionables

Functional, ocean-safe alternatives are now emerging with end-of-life performance and recyclability built into the material itself. Explore next-gen biodegradable paperboard as a plastic substitute in marine-sensitive or high-waste-risk markets.

KM Packaging Launches Low-Temp PET Lidding Film

Faster sealing meets recyclability in new K-Peel 4G

KM Packaging has introduced K-Peel 4G, a mono-material PET lidding film that seals at 110°C in just 0.3 seconds. It adheres even in contaminated conditions, supports PCR and rPET tray use, and works across ambient to frozen food ranges. The product complies with food contact safety standards and is available in thin formats for material reduction.



What's Shaping the Shift

- Low seal initiation at 110°C with 0.3 sec dwell
- Effective with rPET and PCR trays
- Ovenable, anti-fog, and suitable for frozen applications
- Available in 21 and 25 microns
- Lightweight and compliant with EPR requirements

Lessons and Actionables

Functional gains in mono-material lidding films now align directly with recyclability and regulatory pressures in food packaging. Adopt low-temperature sealing films to reduce energy, material usage, and improve pack integrity across formats.

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