



Melodea
RECYCLABLE PACKAGING SOLUTIONS



ENHANCED OXYGEN BARRIER TECHNOLOGY FOR THE **PLASTIC PACKAGING** FILM INDUSTRY

Melodea's Innovation Delivers a Breakthrough Alternative That Simplifies Production While Addressing Critical Film Industry Challenges. Our Advanced Oxygen Barrier Technology Reduces Capital Expenditure (Capex) and is also A Sustainable, Cost-Effective, and Easy-to-Apply Alternative.

This Innovation Enables Film Manufacturers to Move Beyond Traditional, Expensive Materials Like Costly Co-Extruded Materials Such as EVOH, PVOH, Polyamide, Alox, and Siox

MELOX NGEN: ADVANCED OXYGEN BARRIER TECHNOLOGY



Universal packaging compatibility:
Pouches, bags, liners, lidding films, and
blister packs



FDA and BfR approved for food contact



Ideal for processed foods, shelf-stable
products, and temperature-sensitive
items



Print-ready with solvent-based inks;
lamination-ready with standard
adhesives



Water-based, transparent oxygen
barrier coating



Enables mono-material structures for
recyclability



Precision-engineered barrier:
Minimal thickness, maximum
protection.

0.5 gr/m² for medium barrier < 10 cc/
(m²·day) at 50% RH and a thickness of
2 gr/m² for high barrier < 1 cc/(m²·day)
at 50% RH

OUR SOLUTIONS: REDUCE COSTS. INCREASE VALUE.

Industry Challenges

- × Short shelf life, increasing waste and costs
- × High capital expenditure (CapEx)
- × Non-recyclable, multi-layered film structures
- × Supply chain constraints with traditional barrier technologies

Melodea's Advantages

- ✓ Superior oxygen barrier (OTR)
- ✓ Extended shelf life
- ✓ Transparent film
- ✓ Reduces plastic content
- ✓ Enhanced product quality
- ✓ Streamlined supply chain processes
- ✓ Replaces complex barrier technologies (EVOH, aluminum films)
- ✓ Enables fully recyclable packaging
- ✓ Lower capital expenditure (CapEx) through innovative design
- ✓ Decreased metallization content



STRUCTURES (PARTIAL)

BOPP MEDIUM/HIGH BARRIER FILM

NEW STRUCTURE



OLD



OTR <1 or <5 cc/(m²·day), depending on coat weight, @50%RH. Reduce costs by up to 25%

REPLACING METALIZED PET ULTRA-HIGH BARRIER FILM

NEW STRUCTURE



OLD



OTR <0.5 cc/(m²·day) @50%RH
Reduce costs by up to 15%

REPLACING ALUMINUM FOIL

TRANSPARENCY IS DEPENDENT ON THE METALLIZATION TYPE

NEW STRUCTURE



OLD



OTR <0.2 cc/(m²·day) @50%RH
Reduce costs by up to 45% per SQM

REPLACING ALUMINUM FOIL

TRANSPARENCY IS DEPENDENT ON THE METALLIZATION TYPE

NEW STRUCTURE



OLD



OTR <0.2 cc/(m²·day) @50%RH
Reduce costs by up to 45% per SQM

IMPLEMENTATION



Printable with existing equipment, such as flexographic or gravure machines.



Expert technical support is available throughout the implementation process.



Printing is compatible with MelOx-NGen coated films using solvent-based inks.



The films are ready for lamination with various adhesives.

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