



Modulated Fees and Design

NLWA Waste Prevention Exchange 2021

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Amcor at a glance

At home in homes around the world



- ~ 50,000 colleagues globally
- ~ 250 locations across 40+ countries

What we make



- Flexible packaging (plastic, paper, aluminium)
- Rigid packaging
- Folding cartons
- Capsules

Trusted by customers large and small



We produce packaging for more than **4,000** global, regional and national brands

Our Pledge for 2025 – Design for Recyclability is a Critical Foundation

Design all **our packaging to be recyclable or reusable by 2025** and increase our use of PCR

Design all our packaging to be recyclable or reusable by 2025



Significantly increase our use of PCR materials in our packaging



Work with others to drive consistently greater worldwide recycling of packaging



Designing plastic-based flexible packaging for both mechanical and advanced (chemical) recycling: What does it mean?

Mono-polyolefin materials are needed for viable mechanical recycling



Advanced (chemical) recycling input specifications: Review of primary data from large range of pyrolysis providers (Amcor research from 2020): Polyolefin materials are needed

		Min %	Max %
Preferred material	HDPE*	0	50 - 75
	LDPE*	50 preferably >85	100
	PP*	0	50 - 100
Acceptable material	PS	0	10 - 20
	Other Plastics (e.g. PA)	0	5
Not acceptable material	PVC	0	0.06 -
	PET	0	1.5
	PVDC		1-2

* HDPE, LDPE, PP combined not less than 85%, excluding moisture, depending on pyrolysis technology

The right design is the foundation and driver for effective and efficient EPR (example flexible packaging)

Designed to be recyclable (for both mechanical and advanced/chemical recycling)*

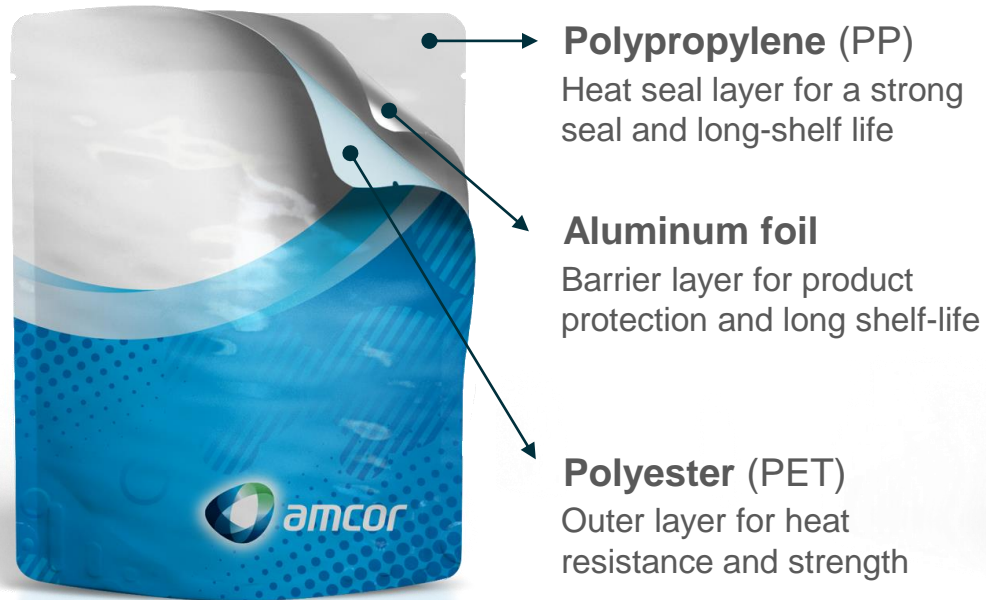
Recycling stream	Preferable	Minimum criteria	Comments
Aluminium stream	>80% aluminium content	>30% aluminium content	
Paper stream	Outer layer is paper >80% fibers content	Outer layer is paper >50% fibers content	<ul style="list-style-type: none"> Includes further criteria; collaboration with Cepi (Confederation of European Paper Industries) /4evergreen started
Polyolefins (PO) stream	>90% mono PP or PE Density <1 g/cm3 No PVC, PVDC, fibres, aluminium foil, PET Other polymers <5% each (e.g. EVOH, PA)	>80% polyolefins (mix of PP and PE) Density <1 g/cm3 No PVC, PVDC, fibres, aluminium foil, PET Other polymers <10% each (e.g. EVOH, PA)	<ul style="list-style-type: none"> Based on the Project Barrier guidelines (2021) and CEFLEX (2020) Includes further criteria Exceptions can be granted based on certified recycling tests (e.g. via PRE/RecyClass, cyclos-HTP)

*Excerpt of key criteria, "living criteria/documents"

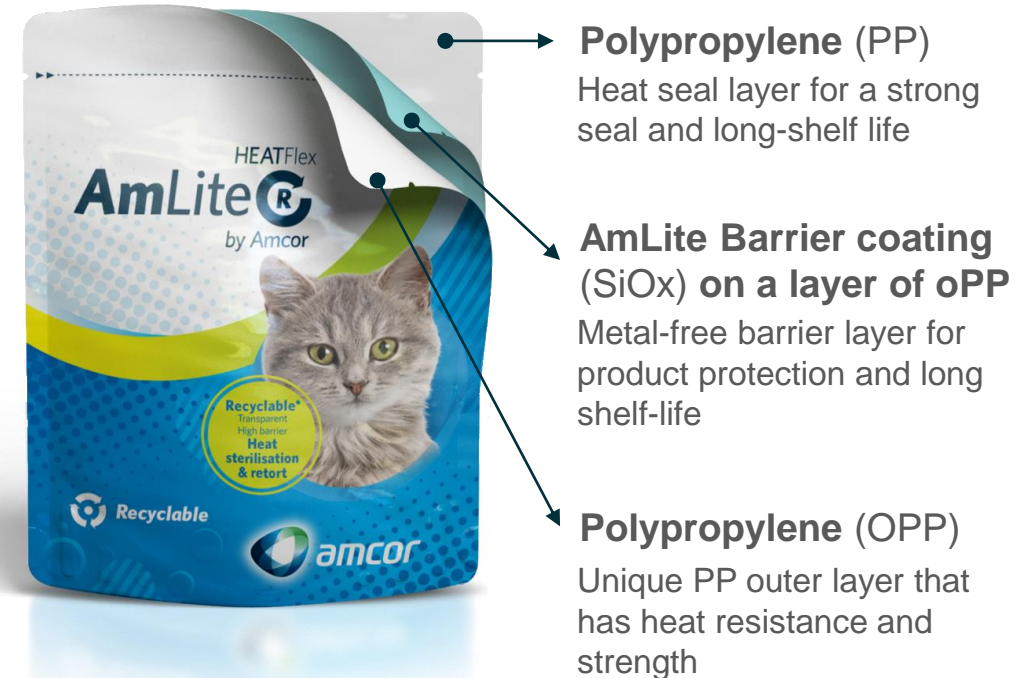
And it can be done even for the most challenging applications

Example **AmLite Heatflex Recyclable** for retort food

Before
STANDARD RETORT POUCH
Non-Recyclable



After
Amcor's AmLite HeatFlex Recyclable
Recyclable*



The Why and How of Eco-Modulated Fees

- **Contribute to development of the infrastructure** for collecting, sorting, recycling in the UK
- Differentiated level of fee, based on recyclability status:
 - Materials / packaging with **well established recycling stream** will have the **lowest fees**. This is a way to incentivize transition towards these categories.
 - Materials which are **not designed for recyclability** will have the **highest fee**. This is the way to incentivize transition away from these categories.

Intermediate fee should be granted to packaging designed for recycling, for which the collection, sorting, recycling infrastructure can be developed or is in development. This is the **key incentive to adopt design for recycling across the industry and develop the appropriate infrastructure** that is needed to reach recycling targets.

Eco-modulated EPR fees: example of Italy

		Examples
Class A	Packaging with an effective industrial sorting and recycling chain existing, mainly from C&I sources	Shrink films, pallet wrap films
Class B1	Packaging with an effective industrial sorting and recycling chain existing, mainly from domestic sources	Pet bottles, HDPE rigid packaging
Class B2	Packaging with an industrial sorting and recycling chain in development phase - from domestic and C&I sources	PE flexible film, PP flexible film
Class C	Packaging with experimental selection / recycling activities in progress or not sortable / recyclable with currently existing technologies	Multi-material flexible:



Driving circularity of flexible packaging



> 170 stakeholders from all parts of the value chain

Material
Producers



Film Producers
and Packaging
Converters



Brand Owners
and Retailers



Waste Collectors,
Sorters and
Recyclers



Flexible
packaging
ecosystem



CEFLEX goals for 2025

Collection of **all** flexible packaging

With over 80% of materials entering a recycling process to be returned to the economy

And used by sustainable end markets to substitute virgin materials



Elements needed for a Circular Economy for Flexible Packaging



1 Flexible packaging must be designed to be recycled

2 Infrastructure/Systems available to collect, sort and recycle it back into usable materials

3 A sustainable Business Case for all parts of the value chain incl. end markets

- Well-accepted Design for Recycling Guidelines (mostly done)
- Implementation of the guidelines across all relevant packaging applications (work in progress)
- Policy Framework that drives expansion of collection, sorting and reprocessing infrastructure
- Effective and harmonized EPR schemes across Europe (Extended Producer Responsibility) with eco-modulation driving design for recycling

*Available from ceflex.eu/guidelines

As a conclusion

- Right packaging design is critical for both mechanical and advanced (chemical) recycling
- Any plastic packaging needs to be designed to fit both mechanical and advanced (chemical) recycling AND IT CAN BE DONE even for the most challenging applications
- EPR is needed to drive circularity of packaging
- Within EPR eco-modulation can be a powerful effective measure
- Eco-modulation should not only be based on the status-quo, but needs to create the incentives to develop a pathway for future collection, sorting and recycling infrastructure for materials designed to be recyclable