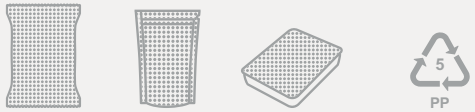
PACKAGING

SUSTAINABLE ALTERNATIVE



Mono Packaging

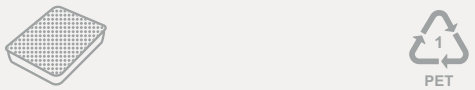
100% RECYCLABLE

TO REDUCE SINGLE-USE FLEXIBLES LIKE BOPP/PE

Features: low moisture permeability, punctureresistant. Low gas permeability - on demand.
Application: meat, cheese products, groceries, confectionery and other dry foodstuffs.
Range: transparent. Available with Anti-fog or Easy-peel functionalities.
Notice: actual trials must be executed.

TO REDUCE SINGLE-USE FLEXIBLES LIKE BOPP/PE, PET/PE, OPA/PE

Features: low moisture permeability. Low gas permeability - on demand. Lamination with bio-based PE is available.
Application: meat, cheese products, fresh and/or deep-freeze foodstuffs.
Range: transparent, white. Available with Anti-fog or Easy-peel or Reclosure functionalities. Energy-saving PE is available (30% less energy consumed in production). 100% recycled PE is available.*
Notice: actual trials must be executed. Less transparent and more temperature-sensitive than regular BOPP or PET. No top varnishing is possible. * Fluctuations in film transparency, sealing temperature range might occur.

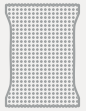


TO REDUCE SINGLE-USE FLEXIBLES LIKE PET/CPP, PET/PE

Features: average gas and moisture permeability (performance is similar to OPA, depending on the thickness).
Application: refrigerated, semi-manufactured foodstuffs, salads, sandwiches and similar.
Range: transparent, metallized. Available with Anti-fog and/or Easy-peel functionalities. Universal sealing is available.
Notice: actual trials must be executed. Compatibility with bottom tray must be analyzed.

PACKAGING

SUSTAINABLE ALTERNATIVE

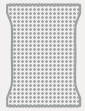


Bio-based*

RENEWABLE RESOURCES | 100% RECYCLABLE

TO REDUCE USAGE OF FOSSILL-BASED PE IN FLEXIBLES

Features: identical structure to fossil-based PE thus recycled together. Low moisture permeability.
Application: identical similar to fossil-based PE.
Range: transparent. Low gas permeability is available.
***Origin:** starch, sugar cane, other sugar-containing raw materials.
Notice: actual trials must be executed.



Bio-based* | **Bio**degradable

INDUSTRIALLY COMPOSTABLE

TO REDUCE USAGE OF FOSSILL-BASED BOPP/BOPP, PET, TWIST FLEXIBLES

Features: breathable - high water and gas permeability. Stiff and sturdy, TWIST-effect.
Application: fresh fruits, vegetables, bread and other foodstuffs that need to breath, twist-wrapped products - e.g. candies.
Range: transparent, metallized, white solid / voided.
***Origin:** starch, sugar cane, other sugar-containing starting raw materials.
Notice: actual trials must be executed. Requires dedicated packaging collection point. Biodegradable when composted under controlled conditions: T>58°C, rh>90%, presence of microorganism and when max 5 components of packaging are non-biodegradable and each component ≤ 1% of packaging weight.

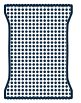
PACKAGING THAT HAS SUSTAINABLE ALTERNATIVE

OBJECTIVE		RECYCLING MARK	COMPOSITE FLEXIBLES TO REPLACE	Origin		Gas permeability			Moisture permeability			Application - product categories							Range						Finnishing				SPECIALTIES	NOTICE
				Fossil-based	Bio-Based	Low	Average	High	Low	Average	High	Dry	Fresh	Semi-manufactured	Refrigerated	Deep-freeze	Meat	Cheese	Transparent	White	Metallized	Antifog	Easy-peel	Reclosure	Flow-pack	Stand-up pouch	Top-sealing	Twist-wrap		
REDUCTION OF SINGLE-USE FLEXIBLES	100% RECYCLABLE	5 PP	**BOPP/PE**	●		●		●	●			●	●	●			●	●	●			●	●		●	●	●		Puncture resistant.	Versions with easy-peel are hazy.
		4 LDPE	**BOPP/PE PET/PE OPA/PE**	●	●	●		●	●			●	●	●	●	●	●	●	●	●		●	●	●	●	●				Less transparent, more temperature-sensitive than regular BOPP or PET. Fluctuations in film transparency, sealing temperature range might occur.
		1 PET	**PET/CPP PET/PE**	●		●	●			●			●	●	●				●		●	●	●	●	●				Universal sealing is available.	Compatibility with bottom tray must be analyzed. MOQ quantities might apply.
REPLACEMENT OF FOSSIL-BASED PLASTICS WITH RENEWABLE RESOURCES		4 LDPE	**PE**		●	●		●	●			●	●		●	●			●						●				Structure and application is identical to fossil-based PE	
	INDUSTRIALLY COMPOSTABLE	7 OTHER	**BOPP/BOPP PET TWIST**		●			●			●	●	●					●	●	●	●				●			●	Breathable, stiff and sturdy, TWIST-effect. Good for foodstuffs that need to breath (vegetables, blue cheese), TWIST-wrapped products, e.g. candies.	Biodegradable when composted under controlled conditions: T>58°C, rh>90%, presence of microorganism and when max 5 components of packaging are non-biodegradable and each component ≤ 1% of packaging weight. Requires dedicated packaging collection point.

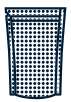
● Default feature

● On demand feature

* In any case trials on filling lines must be executed before commercial print-runs are launched.



Flow-pack



Stand-up pouch

Top-sealing

Twist-wrap