Design For Recycling

GUIDELINES for packaging

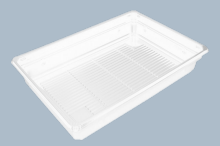
* Decorative technologies must not hinder the recognition of the underlying PET-polymer, such as size, print, mass colouration and/or barrier. The following size indications can be considered to ensure the recognition of PET:
- Size of non-PET surfaces on containers > 500 ml: < 70% coverage
- Size of non-PET surfaces on containers < 500 ml: < 50% coverage

The DfR guidelines for plastic packaging are 100% aligned with…. RecyClass
For more info, please visit **https://recyclass.eu/**

CIRCPACK by VEOLIA

Material:

- PET bottles
- **PET thermoform** Coloured
- PP rigids
- PP flexibles
- PE rigids
- PE flexibles
- PS
- Paper & cardboard
- Beverage cartons
- Glass
- Steel
- Aluminium



		Yes - Full compatibility	Conditional - Limited compatibility	No - Low (or no) compatibility
Main body	Material	PET Thickness >180 microns	PET/PE multilayer with or without barrier not hindering NIR detection of the PET	Any PET based multilayer inc PET/PE; PLA; PVC; PS; PETG; C-PET; PET-GAG; Expanded PET. Thickness <180 microns
	Material composition	A when PET content is > 95%; B when PET content is > 90% and all packaging features are FULLY compatible with recycling	C when PET content is > 70% and all packaging features are FULLY compatible with recycling	D when PET content is > 50%; E when PET content is> 30%; F when PET content is < 30%
	Colours	Transparent & opaque light colours	Dark Colours (NIR Detectable)	Black, Metallic, Non NIR-detectable colours
	Size		Items compacted < 5 cm	Items compacted < than 2 cm
	Product residues	A if the index Easy-to-empty is < 5%; B if the index is < 10%	C if the index Easy-to-empty is < 15%	D if index <20%; E < if index 25%; F if index > 25%
	Barrier	PET based oxygen scavenger without yellowing effect; SiOx and AlOx plasma for barrier on lid; For multilayers: Barrier material within PE layer (i.e PE/EVOH/PE) or with barrier material blended in PE	PET based oxygen scavenger with limited yellowing effect	Barrier layers within the PET layer or in direct contact to PET layer; PA; any other barrier; any other oxygen scavenger
	Additives	Silicone surface coating; Antiblocking masterbatch ≤ 3%	UV stablilisers; AA blockers; optical brighteners; antiblocking masterbatch (> 3%); anti-stat agents; anti-fogging agents	Bio-/oxo-/photodegradable additives; Nanocomposites
	Laminating Adhesives	Water-based Acrylics	EVA	Solvent-free
Attachments	Closure Systems; Lidding films	Floating plastics with density < 1 g/cm³ and easily removal from the tray and without glue residuals;	Unprinted PET or BOPET films; Foamed PET	Any other films
	Other Components	PET Trays with porous enabling liquid retention	Soaker pads & bubble pads easily removable by hands; Soaker pads not hindering recognition of the underlying PET polymer by covering less than 50% of the back of the tray (sorting test mandatory above 50% coverage); Black soaker pads (sorting test)	PVC / PS / EPS / PU / PA; PC/PMMA; Thermoset plastics/metals; Soaker pads & bubble pads not easily removable by hands or leaving residue glue
Decoration*	Inks	Retentive inks compliant with EuPIA Exclusion Policy applied on removable parts; Inks applied on fully removable lids and labels	Production or expiry date directly applied on tray	Bleeding inks; Inks non-compliant with EuPIA Exclusion Policy; PVC co- and terpolymer binders; Any other chlorinated binders; Any direct printing on PET thermoform
	Labels	Labels in PE; PP; OPP (all with density <1 g/cm³ and also in the more heavily printing area), with a size that does not hinder* the recognition of the underlaying PET-polymer (ie < 50% coverage)	BPA-free paper labels without fibreloss during recycling process Labels with a coverage >50% (sorting test)	Plastic labels with density > 1 g/cm³; Paper labels with fibreloss during recycling process; Paper labels containing BPA; Non floating paper labels
	Adhesives (for lids, labels,...)	Alkali/water soluble or alkali/water releasable adhesive at 70°C	Alkali/water soluble or alkali/water partially releasable adhesive at 70°C	Any other adhesives
	Other Decorative Technologies	Laser marking for production or expiry date		Any other laser marking