

# 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://recyclclass.eu/>

CIRCPACK

by VEOLIA

### Material:

#### PET bottles

Clear

- PET thermoform
- 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		PLA; PVC; PS; PETG; PC, PBT
	Colours	<a href="#">Transparent clear</a> , <a href="#">transparent light blue</a>		Other transparent colours; Opaque; Fluorescence; Metallic
	Size			< 4 cm (compacted); > 5 liter content
	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 Easy-to-empty <20%; E< if index is 25%; F if index is> 25%
	Barrier	SiOx plasma coating	Carbon plasma-coating; PA-MXD6 multilayer with <5wt% PA-MXD6 and no tie layers; PGA multilayer; PTN alloy	PA-MXD6 multilayer with >5wt% PA-MXD6 or with tie layers; Monolayer PA-MXD6 blend; EVOH
Attachments	Additives		UV stabilisers; Acetaldehyde (AA) blockers; Optical brighteners; Oxygen scavengers	Bio-/oxo-/photodegradable additives; Nanocomposites
	Closure Systems	PE (with density <1 g/cm <sup>3</sup> ); PP (with density <1 g/cm <sup>3</sup> )		Materials and blends with density >1 g/cm <sup>3</sup> (e.g. highly filled PE, metals,...); Non-detaching or welded closures
	Liners, Seals, Valves	PE; PE + EVA; PP; TPO (all with a density < 1 g/cm <sup>3</sup> ); TPS (with density < 0.95 g/cm <sup>3</sup> )	Foamed PET (all with a density < 0.95 g/cm <sup>3</sup> ); Floatable silicone (with density < 0.95 g/cm <sup>3</sup> )	Materials with density >1 g/cm <sup>3</sup> (e.g. PVC, silicone, metals)
	Other Components	Base cup, handles or other components which are separated by grinding and float/sink - density <1 g/cm <sup>3</sup> ; Unpigmented PET		Materials with density >1 g/cm <sup>3</sup> (e.g. metal, RFID tags); Non detaching or welded components; Coloured PET
Decoration*	Facestock for Label Materials	PE; PP; OPP (all with density <1 g/cm <sup>3</sup> )	EPS; foamed PET; Lightly metallized labels (all with density <0.95 g/cm <sup>3</sup> ); Paper labels without fiberlosses	Labels with density >1 g/cm <sup>3</sup> (PVC; PS; PET; PETG; PLA); Metallized labels; Non-detaching or welded labels; Paper labels with fibreloss; Foamed PETG labels; PET labels with washable inks
	Adhesives for labels	Alkali/water releasable adhesive at 60-80°C		Alkali/water soluble adhesive; Alkali/water non-soluble or non-releasable adhesive at 60-80°C
	Sleeves	PE; PP; OPP (all with density <1 g/cm <sup>3</sup> )	Full sleeves translucent for IR detection in PE; PP; OPP (all with density <1 g/cm <sup>3</sup> ); EPS; Foamed PET; LDPET (all with density <0.95 g/cm <sup>3</sup> )	Sleeves which hinder the recognition of the underlying PET-polymer; with density >1 g/cm <sup>3</sup> (PVC; PS; PET; PETG); Foamed PETG sleeves; PET sleeves with washable inks
	Tamper Evidence Wrap	PE; PP; OPP (all with density <1 g/cm <sup>3</sup> )	EPS; Foamed PET; LDPET (all with density <0.95 g/cm <sup>3</sup> )	Bleeding inks; Inks non-compliant with EuPIA Exclusion Policy; Metallic inks; Washable inks; Any other direct printing
	Inks	Non-bleeding inks compliant with EuPIA Exclusion Policy; Inks applied on removable labels/sleeves	Production or expiry date (direct printing)	Inks that bleed; Toxic or hazardous inks; Metallic inks
	Other Decorative Technologies	Laser marked print or expiry date		Any other laser marking