

# 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....  
 For more info, please visit <https://recyclclass.eu/>

RecyClass

CIRCPACK  
 by VEOLIA

### Material:

#### PET bottles Coloured

- 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	
<b>Main body</b>	Material	PET	PLA; PVC; PS; PETG; PC; PBT	
	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 light colours	Transparent dark 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 is < 20%; E if index is < 25%; F if index is > 25%
	Barrier	SiOx coating; Carbon plasma-coating; PTN alloy; PA-MXD6 multilayer with < 6wt% PA-MXD6 and no tie layer	EVOH multilayer with < 3 wt% EVOH and no tie layers; PA-MXD6 multilayer with < 6wt% PA-MXD6 including tie layers; Monolayer PA-MXD6 blend; PGA multilayer	EVOH multilayer with > 3wt% EVOH or with tie layers. PA-MXD6 multilayer with > 6wt% PA-MXD6
	Additives		UV stabilisers; Acetaldehyde (AA) blockers; Optical brighteners; Oxygen scavengers	Bio-/oxo-/photodegradable additives; Nanocomposites
<b>Attachments</b>	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 < 0.95g/cm <sup>3</sup> )	Foamed PET (with density < 0.95g/cm <sup>3</sup> ); Floatable silicone (with density < 1 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 - all with density < 1 g/cm <sup>3</sup> ; PET		Materials with density > 1 g/cm <sup>3</sup> (e.g. metal, RFID tags); Non-detaching or welded components
<b>Decoration*</b>	Inks	Non-bleeding inks compliant with EuPIA Exclusion Policy; Inks applied on removable labels/sleeves	Production or expiry date (direct printing)	Bleeding inks; Inks non-compliant with EuPIA Exclusion Policy; Metallic inks; Washable inks; Any other direct printing
	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 fibrelosses	Labels which hinder recognition of underlying PET-polymer; with density > 1 g/cm <sup>3</sup> ; 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	Hot-melts; Pressure-sensitive labels	Alkali/water soluble adhesive; Alkali/water non-soluble or non-releasable adhesive at 60-80°C
	Sleeves	Sleeves in 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> )	Materials with density > 1 g/cm <sup>3</sup> (e.g. metal; PVC; PS; PETG); Foamed PETG (even with density < 1 g/cm <sup>3</sup> ); PET with washable inks
	Decorative Techs	Laser marking for production or expiry date		Any other laser marking