

HDPE NATURAL CONTAINERS AND TUBES

	YES - FULL COMPATIBILITY	CONDITIONAL - LIMITED COMPATIBILITY	NO - LOW COMPATIBILITY
CLASS RANKING*	A-B	B-C	D-E-F
DESCRIPTION (Test Protocol)	Materials that passed the testing protocols with no negative impact OR materials that have not been tested (yet), but are known to be acceptable in PE recycling	Materials that passed the testing protocols if certain conditions are met OR materials that have not been tested (yet), but pose a low risk of interfering with PE recycling	Materials that failed the testing protocols OR materials that have not been tested (yet), but pose a high risk of interfering with PE recycling
CONTAINER**	HDPE; Multilayer HDPE with other PE (LLDPE, LDPE, MDPE)		Multilayers HDPE with PLA; PVC; PS; PET; PETG
MATERIAL COMPOSITION	A when PE content is > 95%; B when PE content is > 90%	C when PE content is > 70%	D when PE content is > 50%; E when PE content is > 30%; F when PE content is < 30%
COLOURS	Natural (clear)	Light colours	Black Inner layer; Black; Carbon Black; Other dark colours
SIZE		Items compacted < 5 cm	Items compacted < 2 cm
PRODUCT RESIDUES (Easy to Empty index)	A if the index is < 5%; B if the index is < 10%	C if the index is < 15%	D if the index is < 20%; E < if the index is 25%; F if the index is > 25%
BARRIER	EVOH < 6.0%wt + PE-g-MAH tie layers with MAH > 0.1%wt and EVOH:tie layers ratio ≤ 2; Enkase (fluorination)	EVOH > 6.0%wt + PE-g-MAH tie layers with MAH > 0.1%wt and EVOH:tie layers ratio ≤ 2; EVOH < 1% with any other tie layers	EVOH > 1% with any other tie layers; PA; PVDC; Aluminium
ADDITIVES	Additives that are unavoidable in processing (stabilizers, antioxidants, lubricants, nucleating agents, peroxides) and density remains < 0,97 g/cm ³	Mineral fillers (CaCO ₃ , talc) not increasing density more than 0,97 g/cm ³	Additives changing the material density > 1 g/cm ³ ; Flame-retardant additives, plasticizers; Bio-/oxo-/photodegradable additives
CLOSURE SYSTEM	HDPE; LDPE; LLDPE; MDPE	PP; PET; PETG; PLA; PS (all with a density > 1 g/cm ³); PP; TPE-PP;	Non-PO and/or foams with density < 1 g/cm ³ ; Aluminium; Metal; PVC
LINERS, SEALS AND VALVES	HDPE; LDPE; LLDPE; MDPE; TPE-PE	PET, PETG, PLA, PS (all with a density > 1 g/cm ³); Removable aluminium lidding; Removable silicon with a density > 1 g/cm ³	Non-PO and/or foams with density < 1 g/cm ³ ; Any other TPE; Aluminium; Metal; Foiled paper; PVC
LABELS	Labels in HDPE, LDPE, LLDPE, MDPE (all with density < 1 g/cm ³)* <i>* with a print and/or barrier that does not hinder the recognition of the underlying PE-polymer</i>	Labels in PP (with density < 1 g/cm ³)*; Labels in PET, PETG, PLA, PS (all with density > 1 g/cm ³)*; Labels in Paper without fibre loss*; PO-foamed labels* <i>* with a size, a print and/or barrier that does not hinder the recognition of the underlying PE-polymer: - Indication label size on containers > 500 ml: < 70% coverage - Indication label size on containers ≤ 500 ml: < 50% coverage</i>	Labels that hinder the recognition of the PE; Labels in non PO-materials with density < 1 g/cm ³ ; Paper labels with fibre loss during recycling process; Aluminium; Metallised labels; PVC
SLEEVES	Sleeves in HDPE, LDPE, LLDPE, MDPE (all with density < 1 g/cm ³)* <i>* with a print and/or barrier that does not hinder the recognition of the underlying PE-polymer</i>	Sleeves in PP (with density < 1 g/cm ³)*; Sleeves in PET, PETG, PLA, PS (all with density > 1 g/cm ³)* <i>* with a size, a print and/or barrier that does not hinder the recognition of the underlying PE-polymer: - Indication sleeve size on containers > 500 ml: < 70% coverage - Indication sleeve size on containers ≤ 500 ml: < 50% coverage</i>	Sleeves that hinder the recognition of the PE; Sleeves in non PO-materials with density < 1 g/cm ³ ; Aluminium; Metallised sleeves; Heavily inked sleeves; PVC
ADHESIVES FOR LABELS	Water soluble or water releasable adhesive (@ less than 40°C)	Pressure sensitive labels	Non water soluble or non water releasable adhesives
INKS	Non toxic following the EuPIA Guidelines		Inks that bleed; Toxic or hazardous inks
DIRECT PRINTING	Laser marked; Production or best-before date		Any other direct printing
OTHER COMPONENTS	HDPE, LDPE, LLDPE, MDPE	PP; PET; PETG; PLA; PS all with density > 1 g/cm ³	Aluminium; PVC; Glass components; Foams with density < 1 g/cm ³
RECYCLED CONTENT	No change in the recyclability assessment. A separate 'Recycled Content Traceability Certification' based on a Chain of Custody approach is available with RecyClass		

* Class ranking resulting from the RecyClass assessment. B class is reported two times because of the 90-95% amount of PE in the packaging or because of slight incompatibilities in the design.

** Polymer resin can be either fossil- or bio-based.