Coloured HDPE Containers and Tubes

		FULL COMPATIBILITY	LIMITED COMPATIBILITY	NON-COMPATIBILITY
	MATERIAL COMPOSITION (TOTAL AMOUNT OF **PE** & **PP** IN THE PACKAGING)	A >= 95%, B >= 80% and all packaging features are FULLY compatible with recycling	C >= 70% and all packaging features are FULLY compatible with recycling	Non-recyclable < 70% and all packaging features are FULLY compatible with recycling
	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
	DESCRIPTION (METHODOLOGY)	In case of at least one limited compatibility one penalty is applied, lowering the recyclability class from A to B or from B to C	In case of at least one limited compatibility one penalty is applied, lowering the recyclability class from C to non-recyclable	Non-recyclable
PACKAGING	MATERIALS*	HDPE; Multilayer PE with HDPE prevalence (LLDPE, LDPE, MDPE) TPO <= 10 % (full olefinic or aliphatic structure) TPS <= 5 %	PP; 5 % <TPS<= 10 %	Multilayers HDPE with PLA, PVC, PS, PET, PETG; TPO (containing rubber, e.g. EPDM)
MAIN BODY	COLOURS	All colours	Black inner layer and dark colours (NIR-detectable)	Non NIR-detectable 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 %	Index is >= 15 %
	BARRIER	EVOH <= 6.0 % + PE-g-MAH tie layers with MAH > 0,1%wt and EVOH:tie layers ratio <= 2; Fluorination technologies approved by RecyClass;SiOx Plasma Coating	EVOH > 6.0 % + PE-g-MAH tie layers with MAH > 0,1%wt and EVOH:tie layers ratio <= 2; EVOH <= 1 % with any other tie layers; Plasma Fluorination; Metallisation; PVOH <= 1 %	EVOH > 1 % with any other tie layers; PA; PVDC; Aluminium; PVOH >1 %
	ADDITIVES	Additives that are unavoidable in processing (stabilizers, antioxidants, lubricants, nucleating agents, peroxides) and density remains < 0,97 g/cm³	Mineral fillers (CaCO3, talc) not increasing density more than 0,97 g/cm³	Additives changing the material density > 1 g/cm³; Flame-retardant additives, plasticizers; Bio-/oxo-/photodegradable additives
	LAMINATING ADHESIVES	Polyurethanes and water-based acrylics < 3 %; Laminating adhesives approved as fully compatible by RecyClass; To be tested if in combination with other barrier materials than EVOH and metallisation	Polyurethanes and water-based acrylics 3-5 %; Laminating adhesives approved as limited compatible by RecyClass; To be tested if in combination with other barrier materials than EVOH and metallisation	Polyurethanes and water-based acrylics > 5 %; Laminating adhesive specially developed for high thermal applications above boiling and/or for high chemical resistance (to be tested); Any other laminating adhesives (Epoxy, etc.)
ATTACHMENTS	CLOSURE SYSTEM	HDPE; LDPE; LLDPE; MDPE PP <= 10 %	PP > 10 %; PET; PETG; PLA; PS (all with a density > 1 g/cm³); Removable aluminium lidding	Non-PO and/or foams with density < 1 g/cm³; Aluminium; Metal; PVC
	LINERS, SEALS AND VALVES	HDPE; LDPE; LLDPE; MDPE; TPO; TPS; Foamed PO; EVA	PP; PET, PETG, PLA, PS (all with a density > 1 g/cm³); Removable silicon with a density > 1 g/cm³;	Non-PO with density < 1 g/cm³; Any other TPE; Aluminium; Metal; Foiled paper; PVC
	OTHER COMPONENTS	HDPE, LDPE, LLDPE, MDPE	PP; PET; PETG; PLA; PS all with density > 1 g/cm³	Aluminium; PVC; Glass components; Foams with density < 1 g/cm³
DECORATION**	LABEL MATERIALS	PE	PP, PO (with density < 1 g/cm³); PET, PETG, PLA, PS (all with density > 1 g/cm³); Paper without fibreloss; PO-foamed;	Labels that hinder the recognition of the PE; Non PO-materials with density < 1 g/cm³; Paper with fibreloss during recycling process; Aluminium; Metallised labels; PVC
	ADHESIVES FOR LABELS	Releasable in the recycling process	Non-releasable adhesive approved by RecyClass in combination with filmic PO labels; Acrylic emulsion; Hotmelt rubber	Non-releasable in the recycling process
	IN-MOULD-LABELS	In-Mould-Labels in PE printed with < 1 wt% of the total packaging; Releasable in the recycling process	Any other In-Mould-Labels in PE	Non-releasable in the recycling process in other materials than PO; Cardboard or paper in In-Mould Labels
	SLEEVES	PE; Self-separable plastic and cardboard sleeves under mechanical pressure (sorting test mandatory)	PO (with density < 1 g/cm³); PET, PETG, PET-C, PLA, PS (all with density >1 g/cm³); Cardboard sleeves without fiberloss (sorting test mandatory)	Sleeves that hinder the recognition of the PE; Non PO-materials with density < 1 g/cm³; Cardboard sleeves with fibreloss during recycling process; Aluminium; Metallised sleeves; PVC
	INKS	Retentive inks compliant with EuPIA Exclusion Policy: Inks & lacquer for direct printing representing < 1 wt% of the total packaging, not hindering NIR detection	More than 1wt% direct printing (to be tested)	Bleeding inks; Inks non-compliant with EuPIA Exclusion Policy; PVC co- and terpolymer binders; any other chlorinated binders
	OTHER DECORATIVE TECHNOLOGIES	Laser marking	Electroplating on attachments (with density > 1 g/cm³); Cold transfer and hot stamping technologies not hindering NIR detection	Electroplating on attachments (with density < 1 g/cm³)

RECYCLED CONTENT: No change in the recyclability assessment. A separate 'Recycled Plastics Traceability Certification' based on a Chain of Custody approach is available with RecyClass

* Polymer resin can be either fossil-or bio-based, virgin or recycled . If different grades of the same polymer are present, weights should be cumulated

** Decorative technologies must not hinder the recognition of the underlaying PE-polymer. Features as size, print, mass colouration and/or barrier might require to perform a Sorting Evaluation Protocol. Known misleading features are listed on the RecyClass Methodology and the following size indications can be considered to ensure the recognition of PE:

- Size of non-PE surfaces on containers > 500 ml: < 70% coverage
- Size of non-PE surfaces on containers < 500 ml: < 50% coverage

*** Approved technologies can be found here

Last update: July 2025

RecyClass
Avenue de Broqueville 12
1150 Brussels, Brussels

Phone: +32 2 786 39 08
info@recyclass.eu
www.recyclass.eu