

PP 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 PP 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 PP recycling | Materials that failed the testing protocols OR materials that have not been tested (yet), but pose a high risk of interfering with PP recycling |
| CONTAINER** | PP | | Multilayers PP with PLA; PVC; PS; PET; PETG |
| MATERIAL COMPOSITION | A when PP content is > 95%; B when PP content is > 90% | C when PP content is > 70% | D when PP content is > 50%; E when PP content is > 30%; F when PP 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***; 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 | PP | HDPE; LDPE; LLDPE; MDPE; PET; PETG; PLA; PS (all with a density > 1 g/cm ³) | Non-PO and/or foams with density < 1 g/cm ³ ; Aluminium; Metal; PVC |
| LINERS, SEALS AND VALVES | PP TPE-PP | 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 PP (all with density < 1 g/cm ³)* * with a print and/or barrier that does not hinder the recognition of the underlying PP-polymer | Labels in PE (with density < 1 g/cm ³)*; Labels in PET, PETG, PLA, PS (all with density > 1 g/cm ³)*; Labels in Paper without fibreless*; PO-foamed labels* * with a size, a print and/or barrier that does not hinder the recognition of the underlying PP-polymer: - Indication label size on containers > 500 ml: < 70% coverage - Indication label size on containers ≤ 500 ml: < 50% coverage | Labels that hinder the recognition of the PP; Labels in non PO-materials with density < 1 g/cm ³ ; Paper labels with fibreless during recycling process Aluminium Metallised labels; PVC |
| SLEEVES | Sleeves in PP (all with density < 1 g/cm ³)* * with a print and/or barrier that does not hinder the recognition of the underlying PP-polymer | Sleeves in PE (with density < 1 g/cm ³)*; Sleeves in PET, PETG, PLA, PS (all with density > 1 g/cm ³)* * with a size, a print and/or barrier that does not hinder the recognition of the underlying PP-polymer: - Indication sleeve size on containers > 500 ml: < 70% coverage - Indication sleeve size on containers ≤ 500 ml: < 50% coverage | Sleeves that hinder the recognition of the PP; 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 | PP | PE with density < 1 g/cm ³ ; PET; PETG; PLA; PS all with density > 1 g/cm ³ | Aluminium; PVC; Glass components; Non-PO and /or 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 PP in the packaging or because of slight incompatibilities in the design.

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

*** Under investigation by the RecyClass PP Technical Committee.