Natural PP Flexible Films for Household and Commercial Packaging

| | FULL COMPATIBILITY | LIMITED COMPATIBILITY | NON-COMPATIBILITY |
|---|--|--|---|
| MATERIAL COMPOSITION (TOTAL AMOUNT OF PP & AMOUNT OF PE ATTACHMENTS 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 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 |
| 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 |
| MATERIAL* | Oriented and non-oriented PP (including PP-plastomers) | Multilayer PP/PE with PE <= 10 % | Any other polymer (ex. PET, PVC, etc.) |
| COLOURS | Unpigmented; transparent | Light colours; translucent colours | Dark colours; black; carbon black |
| SIZE | Packaging surface > 100 cm ² | Packaging surface between 30 and 100 cm² (sorting test). | Packaging surface < 30 cm ² |
| 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 | SiOx and AlOx without additional coatings | <= 5 % EVOH (in polyolefinic combination film) | > 5 % EVOH (in polyolefinic combination film); Barrier layer PVC, PVDC, PA; AlOx coating with PVOH primer; any other barrier layer; metallisation; aluminium |
| ADDITIVES | Additives that do not increase the density higher than 0,97 g/cm ³ | | PBT Voiding Agent; Bio-loxo-/photodegradable additives; foaming agents used as expandant chemical agents; Additives that do increase the density higher than 0,97 g/cm² (CaCO3, talc, glass fibers, etc.) |
| LAMINATING ADHESIVES | Aliphatic polyurethanes <= 2.3 %: Laminating adhesives approved as fully compatible by RecyClass; To be tested if in combination with a barrier material other than EVOH | Aliphatic polyurethanes between 2.3 % and 4.5 %. Water-based acrylics ≤= 2.5 %. Laminating adhesives approved as limited compatible by RecyClass; To be tested if in combination with a barrier material other than EVOH | Aliphatic polyurethanes > 4.5 %; Water-based acrylics > 2.5 %; Aromatic polyurethanes (to be tested); To be tested: Laminating adhesives specially developed for high thermal applications above boiling and/or for high chemical resistance. Any other laminating adhesives |
| CLOSURE SYSTEM | PP (including PP-plastomers) | PE | Metal, aluminium, PVC, PET, PETG, PS, PLA, non PO or foams with density < 1 g/cm ³ |
| LINERS, SEALS AND VALVES | PP (including PP-plastomers) | PE, removable aluminium liddings | Metal, aluminium, PVC, PET, PETG, PS, PLA, foiled paper, non PO or foams with density < 1 g/cm³ |
| OTHER COMPONENTS | PP (including PP-plastomers) | PE | Metal, aluminium, PVC, PET, PETG, PS, PLA, paper, foams with density < 1 g/cm³ |
| FACESTOCK LABEL MATERIAL | PP | PE | Metallized labels, any other; paper labels |
| ADHESIVES FOR LABELS | Water soluble or water-releasable at less than 40°C | | Adhesives non-soluble in water or non-releasable in water at less than 40°C |
| INKS** | Non-bleeding inks compliant with <u>EuPIA Exclusion Policy</u> . Printed production or expiry date | Printing with coverage < 50 %*** | Bleeding inks; Inks non-compliant with EuPIA Exclusion Policy; PVC co- and terpolymer binders; Any other chlorinated binders; Printing covering > 50% *** |
| OTHER DECORATIVE TECHNOLOGIES | Laser marking for production or expiry date | Laser marking with coverage < 50 %*** | |

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.
"Nitrocellulose (NC) based inks impact on recyclability is under investigation by RecyClass.
"Temporary solution
""Approved technologies can be found here

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www.recyclass.eu