

Design For Recycling

GUIDELINES for packaging

Material:

- PET bottle
- PET thermoform
- PP rigid
- PP flexible
- PE rigid
- PE flexible
- PS

Paper & cardboard

- Beverage carton
- Glass
- Steel
- Aluminium



	Yes - Full compatibility	Conditional - Limited compatibility	No - Low (or no) compatibility
General bale quality requirements (according to DIN643)	Natural fibre-based paper and board suitable for recycling Normal component of paper: filling material, starch, coating colourants, binding materials and additives compatible with recycling process	Unwanted material (outthrows) max 1.5% Non-paper components, paper and board not according to grade definition, paper and board conflicting with production, paper not suitable for de-inking	Prohibited Material (any material which present a hazard for health, safety and environment, such as medical waste, contaminated products of personal hygiene, hazardous waste, organic waste including foodstuffs, bitumen, toxic powders and similar)
Main Material	Wood-based fibres; Other fibre sources leading to similar pulp quality as wood-based fibres	Other fibre sources leading to different pulp quality as wood-based fibres (bamboo, grass, hemp, etc.) Compostable separable component (such as cellulosic-film window)	Non-separable plastic components & aluminium during reprocessing
Colours		Paper suitable for de-inking	Paper not suitable for de-inking
Barrier (coating, lamination,...)	Without coating or lamination Adhesive lamination with water-soluble adhesives / water soluble coatings	One-sided plastic coating/laminate, if fibre content is > the country specific threshold, Metallisation (70%) of the surface Hot stamping or cold transfert Adhesive lamination inside of packaging (PET, mPET, PET/PE), Wax dispersion and Coating	Two-sided plastic coating/laminate, if fibre content < country specific threshold, Polymers with low shear strenght that break down in pulper PVC coating Silicone or wax coating, Peelable solutions that do not separate during collection and sorting
Labels and Adhesives	Hotmelts with a softening point > 68°C and layer thickness of > 120µm, Pressure sensitive hot melt and pressure sensitive UV-curable acrylic adhesive (pulping test), Waterbased adhesives	Water soluble adhesives	Insoluble adhesives; heavy foils; Latex/Hotmelt; Hotmelts with a softening point < 68°C
Fillers, Additives & Agents	Mineral fillers (talc, kaolin, TiO2, starch, calcium carbonate); Wet strength agents without negative impact on fibre recovery and recycling Dry strength agents (starch, polyvinylamine and GPAM)	PAE (wet strength agent)	Wet strength agents with negative or unproven impact on fibre recovery and recycling; Siliconizing agents
Inks & decorations	Non toxic following the EuPIA Guidelines Water-based inks and varnishes Liquid & dry toners Solvent-based inks and varnishes	Metallic decoration (e.g. hot/cold foil transfer) Metallisation (pulping test)	Inks that bleed; toxic or hazardous inks (Inks that are on the EuPIA exclusion list); mineral-oil based colours; UV curing inks and varnished; plasticised inks. PP/PET metalized laminates; PET metalized films

In some countries a combination of cardboard and plastic is not allowed in the collection system