



Requirements for recycling in the paper industry

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Introduction



- Discussion on recyclability due to the entry into force of the Packaging Act
- Problem: Different perspectives and interests within the paper-packaging value chain
- This results in partly contradicting interpretations regarding recycling between the parties involved



Requirements

- Protection of the high-quality recycling paper collection system in Germany
- Maintaining a high fiber quality in the material flow
- Preservation of the high recycling rates by the paper mills using paper for recycling



Requirements in general



“Regarding the quantity and materials used (printing inks, varnishes, adhesives, auxiliary materials, metal or plastic laminates, etc.),

the recyclability of paper-packaging must ensure that packaging breaks down into fibers,

when they are crushed in an industry standard pulper”



Requirements in detail (blue bin)

Metal or plastic laminates

- Manual or machine separation into different elements should be possible
- Plastic laminator layers should not disintegrate or break into very small pieces during paper dissolution
- Plastic coatings on the front and back should be avoided

Requirements in detail (blue bin)

Coatings and paints

- When using water-soluble or non-water-soluble coatings, industry-standard services for process and wastewater treatment should be considered
- Paints should be able to be removed in the flotation process
- Metallization, metallic foils and other inorganic coatings must not prevent recycling

Requirements in detail (blue bin)

Barriers

- Barriers must not affect the production process or sewage systems in the paper mills or the new product
- It should be possible to remove barriers from the fiber using the conventional screening method
- Barriers that cannot be materially separated must be manually separable from the carrier material by the consumer

Requirements in detail (blue bin)



Printing inks

- No use of mineral oil printing inks
- Reduction of metallic components in the paint formulation
- Any printing inks applied to white paper and cardboard packaging should be deinkable

Requirements in detail (blue bin)

Adhesives

- Use of adhesives that can be applied in such a way that they can be easily removed from the fibers at typical temperatures in the paper mills converting recycling paper
- No use of "soft" adhesives such as certain tapes and self-adhesive labels

Solution approach

- Development of a common understanding and procedure of the entire value chain
- Alignment of the packaging design with the possibilities of an actual utilization in the mills
- Targeted feeding of the packaging into suitable recording systems



Implementation



- Basic recommendations of the entire value chain on standards for recycling
- Creation of a matrix according to which the recyclability can be assessed
- Independent testing of the actual recyclability of individual types of packaging according to the matrix

Implementation

- Determination of the correct recycling channels, i.e. assignment to the blue and yellow bin
- Definition of a uniform and coordinated consumer information (objective: increasing the recycling rate)
- Definition of recycling routes for packaging within the yellow bin



Thank you for your attention



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