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Research area: Product aims

Raw materials // Paper of Recycling

Key words:

paper for recycling, sustainability, resource conservation

TITLE:**Is there a danger of a recycling collapse? – Information about the type, effective direction and interactions of current trends in respect of future quality of paper for recycling in Central Europe****Background/Problem area**

Might the quality of paper for recycling in Central Europe worsen dramatically in the next few years? Various changes in the paper value chain can be observed against a background of rising energy and raw material costs, greater globalisation of the economy, development of new technologies as well as changing social and legal framework conditions. This affects in particular the product spectrum, the raw materials and auxiliary materials used, the technologies applied and the production volume. All these changes have immediate impacts on the composition and paper properties of paper for recycling, since product design, pulp formulation and paper loop directly interact with one another – a relationship that was already demonstrated in Project 143.

The coincidence of several changes, all acting in the same direction, might well intensify the impacts on recovered paper quality. The probability of this happening rises with the increasing number and dimensions of the changes in the value chain. In view of the complexity and global scope of these changes, it is necessary to develop suitable compensation strategies including their implementation in the long term.

The various studies have comprehensively explored pulp availability. This, however, does not apply to paper for recycling recovered paper quality. At present, there are no meaningful or robust accounts of the scheduled or implemented changes concerning the individual value added processes for paper and board as well as their impact on quality of paper for recycling. This relates in particular to the intensity, speed and effective direction of the individual effects of the changes.

Objectives/Research results

The objective of the project is to determine development trends to be expected from 2020 to 2030 in the paper value chain and their impacts on the quality of paper for recycling in Central Europe.

In particular, the project is to provide answers to the following types of questions:

- What raw material and product flows in the main processes of the paper value chain have changed qualitatively during the past few years? What dynamism and what dimensions did these changes have?
- Which grades of recovered paper were subjected to the respective changes in the individual value added processes?
- What technological pulp properties are affected by the individual developments and in which direction?
- Do the changes with the same effect accumulate in a recovered paper grade and, under certain circumstances, accumulate in a product segment of the paper industry?
- What changes are particularly critical on quality of paper for recycling and thus for the development of paper recycling?

The results will be evaluated and presented in the form of a risk tree.

One focus of the project will be to work out recommendations for implementing the best suitable fine-tuning for the long-term security on quality of paper for recycling.

Application/Economic benefits

The project has strategic character. Development trends which may obstruct the use of paper for recycling in the Central European paper industry will be pinpointed and quantified. Suitable options for appropriate action for the sustainable further development of paper recycling by the paper industry will be prepared. The countermeasures will be evaluated by means of SWOT analysis.

Period of time: 01.01.2013 – 31.12.2013

Remarks

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