

Heidenau / Germany, 31.08.2022

New PTS method PTS-RH 025:2022 for the analysis of the aqueous phase in fibre recovery processes available

Heidenau, 31.08.2022. New PTS method to determine the content of dissolved, colloidal and suspended substances in the aqueous phase of a fibre suspension after disintegration in lab scale – PTS-RH 025:2022.

The significant reduction of water usage in paper manufacturing is based on an increasing rate of circular water usage in paper production. At sites which use predominantly recovered paper, the water circuits are often partially or completely closed. Despite the advantages associated with the resource protection, some adverse effects can be observed caused by an increasing accumulation of dissolved, colloidal and suspended material in the process water. This comprises in addition to hampered quality of the product also side effects like increased cleaning efforts caused by agglomeration and deposition of material on paper manufacturing aggregates. The potential to release substances to the aqueous phase during disintegration has so far not been considered in the method PTS-RH 021:2012 evaluating the recyclability of packaging products.

PTS-method PTS-RH 025:2022 has been developed to determine and evaluate the contaminants which are released upon disintegration to the aqueous phase. It is used for the **quantification of dissolved, colloidal and suspended substances in the filtrate** of a fibre suspension following standard disintegration in the **lab scale**. After the filtration of the fibre suspension, the water is vaporized, followed by a gravimetric determination of the residues. For an **optional qualitative assessment** of the filtrate the chemical oxygen demand (COD) is measured. The assessment of the sample is based on the comparison with reference values. The revised *Cepi Recyclability Laboratory Test Method for recycling in standard mills, Version 2* (2022) includes the described method and parameters.

The new PTS method is available at Papiertechnische Stiftung (PTS) as of now, please send an inquiry to <u>recyclingtest@ptspaper.de</u>.

Press Release – website: <u>https://www.ptspaper.de/de/aktuelles/detailseite/pts-rh-0252022-for-the-analysis-of-the-aqueous-phase-in-fibre-recovery-processes/</u>

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As a research and service institute based in Heidenau (near Dresden) in Germany, we support the paper industry and companies in all industries in the development and application of modern fibre based solutions. We develop, optimise and test products and processes in the fields of paper production and processing, fibres and composites, functional surfaces, packaging, corrugated board and smart & circular solutions.



At the AiF (German Federation of Industrial Research Associations – in short AiF - www.aif.de), the Zuse-Gemeinschaft (www.zuse-gemeinschaft.de) and the research alliance DRESDEN-concept e.V. (www.dresden-concept.de), the Papiertechnische Stiftung (PTS) is a proud member and part of three net-works, which are committed to the promotion of applied research for small and medium-sized companies with the aim of translating scientific findings into applicable technologies and preparing the ground for innovations. As an affiliated institute of the University of Excellence TU Dresden, there is close scientific cooperation in the areas of knowledge transfer, research and education of young researchers.







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