Advancing recyclability standards: Afera's contribution to 4evergreen's evaluation protocol under the new EU packaging regulation



The new EU Packaging and Packaging Waste Regulation (PPWR) emphasises the recyclability of packaging materials, prompting the development of a test method by Cepi and a corresponding evaluation protocol by the 4evergreen alliance. Afera contributed to the protocol by providing data and recommendations on the testing of adhesive tapes, particularly carton sealing tapes, which have now been incorporated into the protocol's sample preparation guidelines.

The new EU Packaging and Packaging Waste Regulation (PPWR), which was recently adopted by the European Parliament and is now in force, will have a significant impact on the design, material characteristics, and handling of all types of packaging and packaging components, including adhesive tapes. A key aspect of the regulation is the recyclability of packaging materials.

In preparation for the ambitious recycling targets set by the PPWR, the European Confederation of the Paper Industry (Cepi) has developed a laboratory test method to assess the technical recyclability of fibre-based packaging. This method simulates the processes of pulping, screening, and sheet formation typically carried out in recycling mills using conventional procedures. It has undergone several stages of development and refinement since its initial publication in 2020.

Complementing this test method is the Recyclability Evaluation Protocol for Fibre-based Packaging, developed by 4evergreen—a cross-industry alliance comprising members active throughout the lifecycle of fibre-based packaging, from forestry to recycling. The beta version of this protocol was released in 2022, and 4evergreen invited stakeholders to provide feedback and suggestions for improvement ahead of the launch of the first official version in January 2025. Afera has actively contributed to the protocol's development by providing input.



Afera's contribution focuses on a specific question regarding the use of the test method in relation to adhesive tapes, particularly carton sealing tapes (CSTs). Since both the test method and the evaluation protocol refer to complete packaging units with all additional components, the question arises as to how these tools can be appropriately applied to the testing of individual components—such as CSTs—which may be used with a wide variety of corrugated board sizes and grades. What constitutes a representative reference quality of corrugated board for testing purposes? More importantly, what is a representative mass ratio between the CSTs and the reference board material?

To address these questions, Afera surveyed its member companies to collect data on the mass ratios observed in real-world applications. This feedback was evaluated, distilled into a final recommended value, and submitted to 4evergreen along with a detailed rationale. Afera also requested guidance on the appropriate reference board quality.

This input has been acknowledged by 4EG and incorporated into an annex of the evaluation protocol entitled *Detailed Work Description: Sample Preparation*. This annex includes a section on "packaging aid sample preparation", which covers various packaging components, including tape. It outlines recommendations for reference board quality, mass ratios, and procedures for sample preparation. A "default value" of 5% is recommended for the mass ratio of packaging aid to board material. However, other "typical values" based on market data may also be used, making Afera's recommended figure of 3% a valid and acceptable option for CST testing.

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