

Packaging Analysis

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Abstract: The project proposed consists of two different experiments, which are both part of the packaging consortium. The two different experiments include Analyzing the Correlation Between Peel Testing Techniques and Testing the Performance of 100% Recyclable Material.

The purpose of the Peel Test Analysis is to find a correlation between the three ASTM F88 peel testing techniques. The three different ways to perform a peel test are 90° unrestrained, 90° restrained, and 180° restrained. Companies often do not communicate the specific technique with which they perform these tests and, therefore, are not uniform when setting acceptance criteria. This project would attempt to determine if there is a formula that could be applied to translate across peel testing techniques.

The purpose of the second experiment is to determine if the strength properties of 100% Recycled Packaging Material are comparable to that of virgin material at standard and extreme conditions. This would be determined by comparing the difference between cushioning and compression strength properties of each under variations of temperature and humidity. The tests will include Edge Crush Testing, Burst Testing, and Compression Testing as performed according to TAPPI Standards.

Keywords: Packaging, peel test, recycled packaging materials

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