



Recyclable Packaging Update

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The desire for recyclable packaging continues to grow in popularity. Many brand-owners have already published goals for their packaging to be recyclable by 2020. There are many activities underway but there is also lots of *continuous change*. This article is designed to provide some background as well as highlight a few of the most recent changes.

American Packaging continues to make headway in the development of laminate specifications designed for front-of store drop-off recycling. To date, these specifications are limited to polyethylene based polymers with select barrier resins. APC is developing laminates suited to all flexible package formats.

Determining Recyclability and Package Labeling

The Sustainable Packaging Coalition (SPC) through the *2015-2016 Centralized Study on Availability of Recycling* has proven that recycling is available to a substantial majority of consumers enabling recycling claims on packaging. The SPC through the How2Recycle program offers this label that can be placed on packages to inform customers

on how to properly recycle their package.

Customers seeking to place this label on their packages, would join the How2Recycle program and submit the request. SPC would validate the recyclability data and provide the proper label that corresponds to the matching recycling stream.



Figure 2 How 2Recycle Label

Through the end of last year, recyclability determinations were provided through TREX, the plastics lumber manufacturer. In January, the Association of Plastics Recyclers (APR) who represents the material recovery facilities (MRFs), issued their own set of standards. These standards are under review but we expect the new test standard will further scrutinize materials allowed in the recycle stream.

Design Considerations for Recyclable Packaging

Redesign of traditional, multi-layer flexible packages for recycling can pose design challenges. Generally, the limited range of recyclable resins does not offer the same

properties and trade-offs may be required. One of the most likely changes relates to package conversion where

the recyclable laminate exhibits less dimensional stability and lower heat resistance.

Converting Recyclable Packaging

Overcoming the converting challenges require, at minimum, changes to the sealing conditions including heat and dwell time. More drastic changes can include equipment modifications. APC has developed a 100% recyclable, fitmented stand-up pouch utilizing ultrasonic seal technology. This technology uses vibration energy and melts the innermost layers of the packaging material leaving the outside layers cool.



Additional customers have made progress in recycling by adjusting their heat sealing process. Annie's is the latest customer who debuted a recyclable package with a metallized PE laminate. [Follow the hyperlink for more detail](#). The laminate for this was produced at APC's flexo facility in Story City.

Another option to consider with a minimal effect to the conversion process is recyclable laminate with applied cold seal. Internal testing is underway for this option with results anticipated in the next few months.

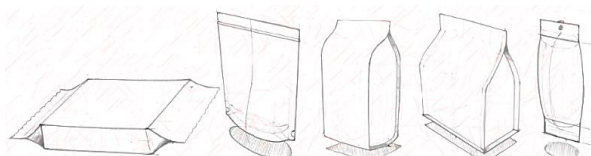


Figure 1 Recyclable Package Formats Being Developed by APC