PLASTICS DESIGN FOR RECYCLABILITY WEBINAR SERIES

Part 5: Flexible Packaging

Hosted by: Walmart & The Association of Plastic Recyclers
Registration links, presentation slides and recordings will be available on the APR Website and the Walmart Sustainability Hub.
TODAY’S PRESENTERS

Steve Alexander
President, APR

Ashley C. Hall
Senior Manager - Sustainability, Walmart

Curt Cozart
President, Common Sense Solutions, Inc

Kara Pochiro
VP of Communications & Public Affairs, APR

The Association of Plastic Recyclers
AGENDA

1. Reminders:
   a. What Is This Series?
   b. Walmart goals
   c. Who is APR and what makes something recyclable.

2. Overview of flexible packaging—uses and purposes
3. When flexibles are not recyclable
4. Designing for Recyclability
5. Resources
6. Questions
WHAT IS THIS SERIES?

A series of webinars hosted by Walmart, and presented by The Association of Plastic Recyclers, discussing design for plastics recyclability and communicating the common messages within the Walmart Recyclability Playbook and the APR Design® Guide for Plastics Recyclability.

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All webinars begin at 2:30 PM EST.
OUR SUSTAINABILITY PRIORITIES

Key Focus Areas for Walmart Sustainability in FY20

PROJECT GIGATON

Working with suppliers to reduce 1 billion metric tons of GHGs by 2030

PACKAGING & PLASTICS

Use less plastic. Make it recyclable. Label it for the customer.

SUSTAINABLE PRODUCTS

Identify sustainability priorities based on your product category

JOIN US!
WALMARTSUSTAINABILITYHUB.COM

USE SUSTAINABLE MATERIAL SPECS AND LABEL PACKAGING

ADVANCING EDLTC ACROSS ALL PRODUCT CATEGORIES
OUR SUSTAINABLE PACKAGING COMMITMENTS
For Private Brands, Encouraged for National Brands

**USE LESS PLASTIC**
Reduce the use of plastic when possible
- **Remove unnecessary packaging**

**MAKE IT RECYCLABLE**
20% Recycled content in plastic packaging
- **Increased recycled content**
100% Recyclable, reusable, or industrially compostable
- **Make packaging recyclable**

**LABEL IT**
100% Packaging labeled for recyclability
- **Apply the How2Recycle label**

INNOVATE TOGETHER
Project Gigaton is designed so that every supplier can participate in at least one pillar.
The Sustainability Hub, a one-stop shop

- Learn how to design for recyclability
- Download the recycling playbook
- Find webinar recordings
- Link to other resources

walmart sustainabilithub.com
WHO IS APR?

International trade association

The Voice of Plastics Recycling®

Companies committed to the success of plastics recycling
WHO IS APR? ENSURING PACKAGE DESIGN FITS WITH RECYCLING INFRASTRUCTURE

- APR Design® Guide for Plastics Recyclability
- Test Methods
- Training
- Communication
- Advocacy
APR’s DEFINITION OF RECYCLABLE

60% consumer access

Processed by existing infrastructure
  • sort
  • clean

Can be manufactured into identifiable product

The Association of Plastic Recyclers
Widely recycled plastics if designed correctly!

- Thin
- Light
- Versatile
- Good moisture barrier
- Provides protection and bundling
FLEXIBLE PE PACKAGING MEETS CONSUMER ACCESS REQUIREMENT

60% consumer access

✓ PE flexible

Processed by existing infrastructure
• sort
• clean

Can be manufactured into identifiable product
CONSUMER ACCESS TO FLEXIBLE PE COLLECTION

Here

Not Here!
FLEXIBLE PE PACKAGING MEETS END PRODUCT REQUIREMENT

60% consumer access

✓ PE flexible

Can be manufactured into identifiable product

Processed by existing infrastructure
- sort
- clean

The Association of Plastic Recyclers
PRIMARY END PRODUCTS:
INFRASTRUCTURE COMPATIBILITY IS CRITICAL

60% consumer access

Processed by existing infrastructure
- sort
- clean

Can be manufactured into identifiable product
ONLY FLEXIBLE POLYETHYLENE IS RECYCLABLE
(HDPE, LDPE, LLDPE, HMWPE)

PVC

PP

PET
ONLY FLOATING POLYETHYLENE IS RECYCLABLE

Films, bags and wraps may use a large amount of fillers which make the material sink. (PE normally floats) This is avoidable in most cases!

Definitions and test methods at www.plasticsrecycling.org
METALIZED FILM, BAGS AND WRAPS ARE NOT RECYCLABLE

They cannot pass through metal detectors in the system

Definitions and test methods at www.plasticsrecycling.org
DEGRADEABLE ADDITIVES IN FILM, BAGS AND WRAPS ARE NOT RECYCLABLE

Definitions and test methods at www.plasticsrecycling.org
FLEXIBLE PACKAGE THAT CANNOT BE CLEAN AND DRY IT IS NOT RECYCABLE
MOST COMMON FACTORS AFFECTING FLEXIBLE PE QUALITY AND YIELD

1. Multi-layer materials
2. Coatings and Additives
Multi-Layered packaging:
Enhances properties

ISSUES

• Cannot be separated from each other and contaminate the recycled end product

ACTION

• Use versions of PE
• Use barrier technologies listed in the APR Design Guide for Plastics Recyclability
• Use compatibilizers
Coatings and additives:
Enhance properties

ISSUES

• Cannot be separated and contaminate the recycled end product
• Can make material sink

ACTION

• Use structures tested and approved through the APR benchmark or critical guidance protocols
• Ensure material is light enough to float

Definitions and test methods at www.plasticsrecycling.org

The Association of Plastic Recyclers
STAND UP POUCHES
STAND UP POUCHES
Recyclable if designed correctly

Clean and Dry?
Non PE components
Heavy fillers
Metalizing
Multi layer

Many Potential Downfalls
DESIGNING FOR RECYCLABILITY – FLEXIBLE PE

**DO NOT use**
- Degradable additives
- Large amounts of heavy fillers
- Metalizing

**TEST**
- Multi layer
- Fillers
- Compatabilizers

**USE APR approved**
- Polyethylene
- Barrier layers
DESIGNING FOR RECYCLABILITY – FLEXIBLE PE

- Leverage the Walmart Recycling Playbook and APR Design Guide for Plastics Recyclability
- Use the How2Recycle label for consumer messaging
QUESTIONS

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*APR Design® Guide Training Program
DESIGNING FOR RECYCLABILITY – FLEXIBLE PE

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Check out the following webinars for more information:

October 31  Using More PCR

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