

## What are the advantages of Flexible Packaging over rigid containers?

When compared to rigid containers, Fres-co flexible packaging offers great advantages:

- Less packaging materials
- Less Storage Space required
- Less solid waste
- Improved worker safety and...
- Lower shipping cost.



# What are the advantages of Flexible Packaging over rigid containers?

In addition, Fres-co flexible packaging is environmentally friendly and has proven to be a source of reduction in multiple aspects. By using flexible packaging you will have:

- 40% Less overall packaging cost
- 50% reduction in landfill waste
- 62% reduction in GHG and
- 71% reduction in BTU consumption



# Life Cycle Analysis Comparison HPDE Bottle / Flexible Pouch



**VS.**



## Liquid Abrasive Suspension Product Packaging Comparison

Description	Plastic Canister	Fres-co Pouch
Product	Abrasive Suspension	Abrasive Suspension
Product Volume (fl. Oz)	128.0	128
Std. for Waste Analysis fl. oz.	100,000	100,000

PRIMARY PACKAGE INPUTS		
Description	HDPE bottle with labels and cap	Laminate Pouch
Weight Each (grams)	150	34
Post Consumer Recycling Rate (%)	25%	0%

SECONDARY PACKAGE INPUTS		
Description	DW Case with Divider	DW Case with Divider
Packs/Case	4	4
Weight Each (grams)	840	590
Post Consumer Recycling Rate (%)	70%	70%

CONT. "Comparison Packaging for Liquid Abrasive Suspension Product"

**Packaging Waste Estimates – values are per 100,000 fl. oz. product**

Includes primary and secondary packaging. Does not include pallet or unitizing waste

Package	Current	Proposed
Primary Package Waste (pounds)	258	59
Secondary Package Waste (pounds)	362	254
Total packaging Waste (pounds)	620	313
Packaging Waste Recycled (pounds)	318	178
Packaging Waste Recycled (pounds)	302	135
Total Source Reduction	n/a	n/a
Reduction of Landfill/Incinerator Waste	n/a	n/a

**GHH and Energy Estimates – values per 100,000 fl. oz. product**

Includes primary package only. Does not include secondary packaging, transport of the package, filling, storage and distribution.

Pollution & Energy Usage	Current	Proposed
GHG in CO <sub>2</sub> equivalents (pounds)	739	283
Energy usage (MM BTU)	9.47	2.71

## HDPE Bottle vs. Flexible Pouch Abrasive Suspension Product

