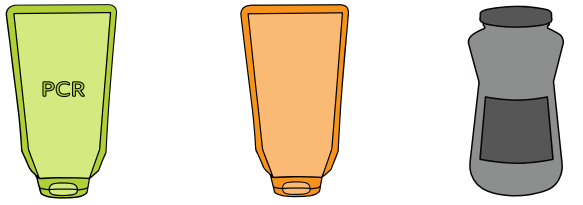
STREAMLINED LIFE CYCLE ASSESSMENT* SALSA PACKAGING CASE STUDY

SALSA PACKAGE COMPARISON

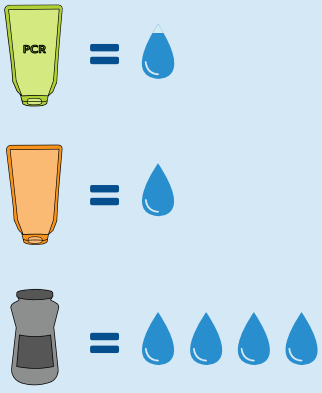
Salsa generally is packaged in a clear glass jar. For this streamlined Life Cycle Assessment study, a comparison was made between a popular salsa container in a glass jar versus the premade STANDCAP Pouch, an eco-friendly inverted flexible pouch.



PCR STANDCAP | STANDCAP | GLASS JAR

Water Consumption

The premade STANDCAP Pouch results in over **74.8% lower** water use than the glass jar (and **78.2% lower** when incorporating in the PCR content). This is driven by the large amount of water used to cool the molds in the glass making process.



Greenhouse Gas Emissions

The premade PCR STANDCAP Pouch has a much lower GHG emission impact **(-76.5%)** than the glass jar. This is again driven by the weight difference between the two package formats.

Fossil Fuel Consumption

The premade STANDCAP Pouch uses nearly half the fossil fuel **(-54.8%)** resources, with an additional fossil fuel reduction **(-59.5%)** to produce the PCR pouch versus the glass jar example. This is largely driven by the glass jar using about twelve times as much material (288.2g vs. 20.24g) to package nearly the same amount of product.

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*All environmental impact metrics were developed using the streamlined life cycle assessment tool, EcoImpact-COMPASS®

END OF USE SUMMARY

SOURCE REDUCTION BENEFITS

According to the U.S. EPA Waste Hierarchy, the most preferred method for waste management is source reduction and reuse.

A major benefit of flexible packaging is the high product-to-package ratio that it offers.

RECOVERY BENEFITS

PCR STANDCAP

1x
amount of material ending up as municipal solid waste

STANDCAP

1x
amount of material ending up as municipal solid waste

GLASS JAR

8.7x
amount of material ending up as municipal solid waste

High product-to-package ratio:

95.1% Product weight | **4.9%** Package weight

95.1% Product weight | **4.9%** Package weight

Low product-to-package ratio:ratio:

60.6% Product weight | **39.4%** Package weight

While many multi-material flexible packages are not yet recovered and recycled in any significant amount, they still result in a substantial reduction in the amount of material sent to landfill versus other types of packaging.

The glass jar uses over **12x** as much material of packaging to contain 1000kg of salsa as the pouch. Even when considering the glass recycling rate of **33.1%** in the U.S. today, the premade STANDCAP Pouch still contributes far less **(-88.5%)** material to landfills than the glass jar.

IMPLICATIONS

The results in this scenario show that the premade STANDCAP Pouch has a number of sustainability benefits when compared to a glass jar for packing and shipping salsa. These include lower fossil fuel and water use, greenhouse gas emissions, better product: package ration (efficiency of materials), and considerably less material discarded at end of life.

FORMAT	FOSSIL FUEL CONSUMPTION (MJ-EQUIV)	GHG EMISSIONS (KG-CO^2 EQUIV)	WATER CONSUMPTION (L)	PRODUCT-TO-PACKAGE RATIO (%)	PKG LANDFILLED ((G)/1,000 KG SALSA)
PCR STANDCAP POUCH	1.93 (-59.5%)	.0945 (-76.5%)	26.69 (-78.2%)	19.6:1 (95.1% : 4.9%)	50,996 (-88.5%)
STANDARD STANDCAP POUCH	2.15 (-54.8%)	.10 (-75.1%)	30.78 (-74.8%)	19.6:1 (95.1% : 4.9%)	50,996 (-88.5%)
GLASS JAR	4.76	.4017	122.24	1.5:1 (60.6% : 39.4%)	441,678

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*For more information and methodologies of assessments, please visit **www.flexpack.org** or **www.glenroy.com** to download Glenroy's "A Streamlined Life Cycle Assessment Comparison for the Glenroy Premade STANDCAP Pouch in the Sauces and Personal Care Market versus Rigid Packaging Options" report and refer to pages 49-52.*