

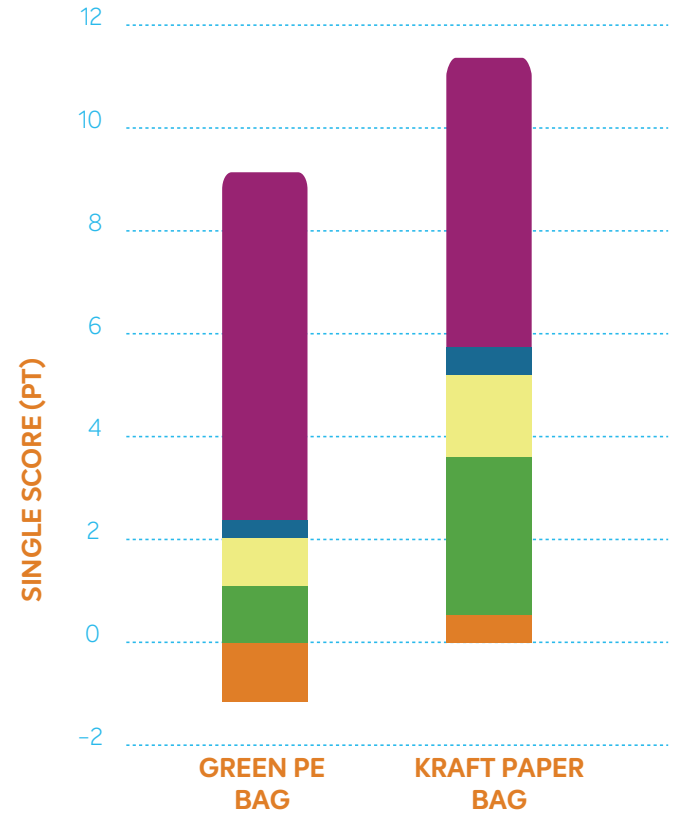
Promotional Bags

CONTEXT:

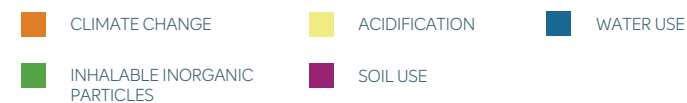
Currently, nearly every product purchased leaves the store in a carton or bag. Made of Polyethylene (PE) Green or kraft paper, they are used in the commerce, with straps made from the same material and can hold up to 14 liters. In order to evaluate the environmental impact of the two renewable alternatives, a Life Cycle Assessment study was carried out, together with ACV Brasil.

PROS AND CONS:

- The promotional Green Polythene (PE) bag has a lower environmental impact in most categories, especially Climate Change, since sugarcane, the raw material of Green Polyethylene, captures carbon dioxide from the atmosphere.
- For every 1,000 bags made of green polyethylene, there is a carbon sequestration equivalent to 84kg of CO₂eq, which is equivalent to a gasoline car driving for 331km.
- The Green PE bag consumes 39% less water than the kraft paper bag.
- On the other hand, the kraft paper bag has a 23% lower impact in the category of soil use, as the stages involved in the cultivation of sugarcane, the raw material of the Green PE, require high land use.



SUSTAINABILITY INDICATOR



GREEN POLYETHYLENE BAG

UNITARY MASS: **30 g**
RESISTANCE: **10 kg**

KRAFT PAPER BAG

UNITARY MASS: **56 g**
RESISTANCE: **10 kg**

RESULTS:

- Despite the renewable source of both alternatives, Green Polyethylene has a greater capacity for carbon sequestration. In contrast, the agricultural stage of planting and cultivating sugarcane, for example, is the reason for the lower environmental performance of the Green Polyethylene option in Soil Use, Depletion of the O₃ Layer and Eutrophication.
- For the kraft paper bag, the impacts focus on paper production steps, such as planting and pulping. As for Green Polyethylene, both environmental impacts and credits focus on the stages of sugarcane cultivation, fermentation, and polyethylene production.
- Even with lower recycling rates, Green Polyethylene promotional bags have low environmental impact for most impact categories, especially in Global Warming, where performance is 132% better.

	GREEN PE BAG	KRAFT PAPER BAG
INHALABLE INORGANIC ITEMS	1x	3x
ACIDIFICATION	1x	1,3x
WATER USE	1x	1,6x
SOIL USE	1,3x	1x