

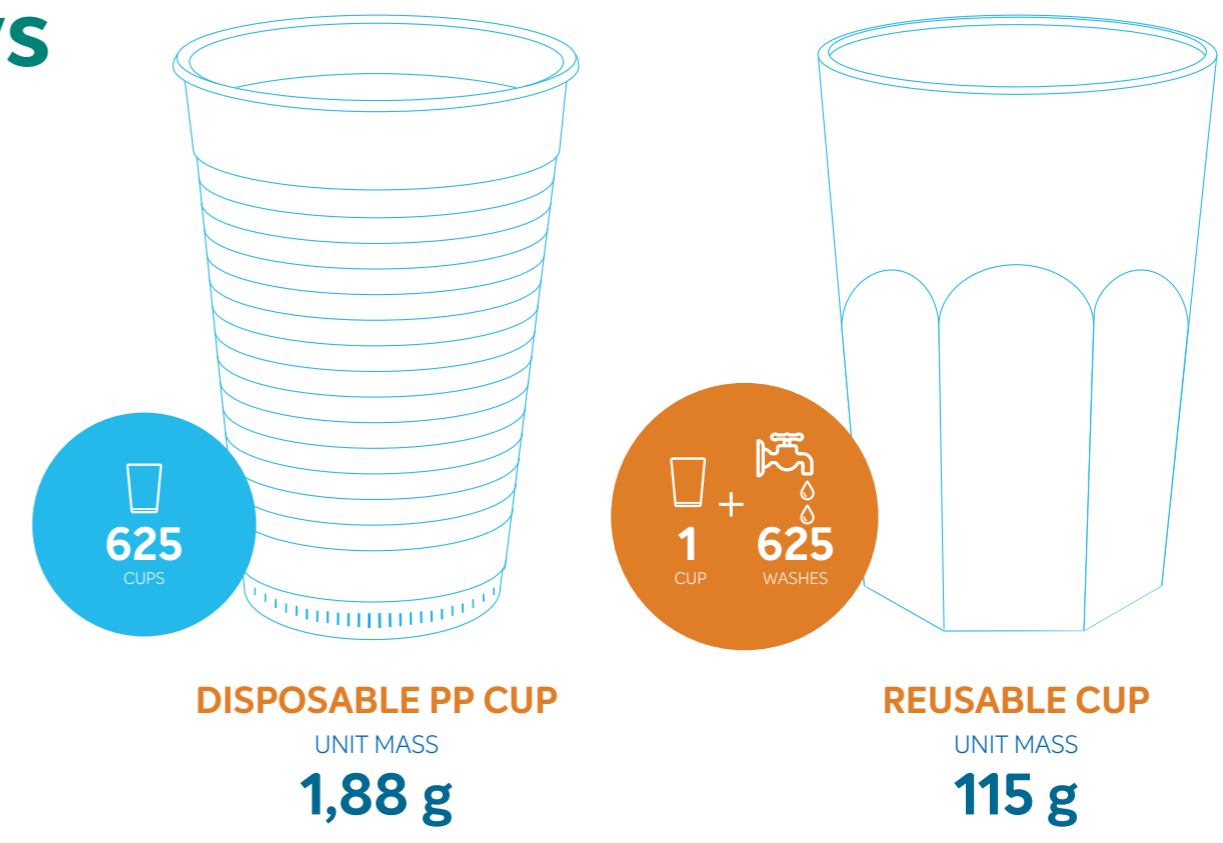


# Disposable Cups vs Reusable Cups

## CONTEXT:

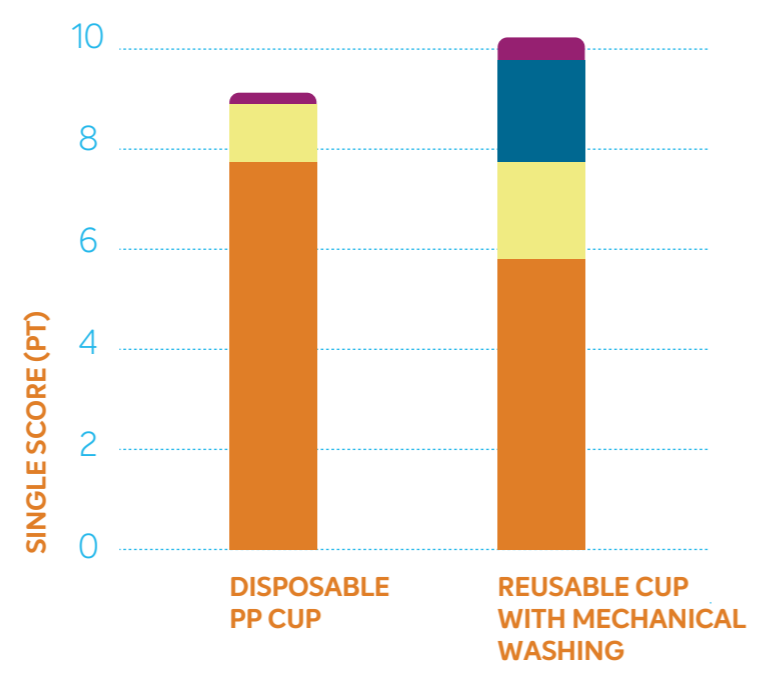
Disposable cups are an alternative to serve the floating public of offices and commercial buildings, as they offer a guarantee of hygiene in high-turnover environments.

Nevertheless, there is a misconception that using reusable cups is more sustainable. To ensure a better understanding of this issue, a comparative Life Cycle Assessment was carried out in conjunction with the consulting firm ACV Brasil on disposable polypropylene cups (PP) and reusable cups with mechanical washing.



## ADVANTAGES AND DISADVANTAGES:

- They use 30% less energy in their life cycle compared to reusable cups with mechanical washing;
- They use less water, consuming only 26 ml throughout their cycle, including production and recycling. Comparatively, for reusable cups, the manual washing step alone uses an average of 1,2 L of water, while mechanical washing uses 240 ml;
- On the other hand, disposable cups are responsible for a larger generation of waste. Therefore, the recycling of this material is essential.



## SUSTAINABILITY INDICATOR



## RESULTS:

- Environmental profiles of the two types of cups are very different from each other: On the reusable cups system, impacts are concentrated on the washing process, while for disposable cups the impacts concentrate on the polypropylene production.
- Looking at all impact categories together, we can conclude that overall environmental performance of the two alternatives is very similar.
- Disposable cups help save water and energy, but emit more greenhouse gases.

	DISPOSABLE CUP	REUSABLE CUP + MECHANICAL WASH	REUSABLE CUP + MANUAL WASHING
CLIMATE CHANGE	CO <sub>2</sub> 1,36x	CO <sub>2</sub> 1x	CO <sub>2</sub> 1x
WATER USE	1x	9x	46x
USE OF NON-RENEWABLE RESOURCE	6,7x	1x	1x