Fact Sheet: Shopping Bag

Analysis of the Life Cycle

This fact sheet shows the results of the life cycle analysis. The greenhouse gas emissions have been analysed and evaluated.

Product Information

The CO_2 balance shows which shopping bags of the Migros assortment are most climate-friendly. The following three shopping bag types were analysed:

Shopping bag made of paper

Shopping bag made of PP

Shopping bag made of rPET (recycled PET)

Functional Unit: Packing of objects with a volume of 1000 liters.

The Comparison

It has been compared how many times a shopping bag made of synthetic material has to be used to equal the emissions of a paper shopping bag. It was considered that the synthetic bags have a larger volumetric capacity than the paper ones. Likewise, a comparison between the PP and rPET shopping bags was made.

The greenhouse gas emissions (expressed in CO_2 equivalents) were summed up over the whole life cycle of the shopping bags, i.e. from the winning of the raw materials, to the production, the transportation, through to the waste disposal.

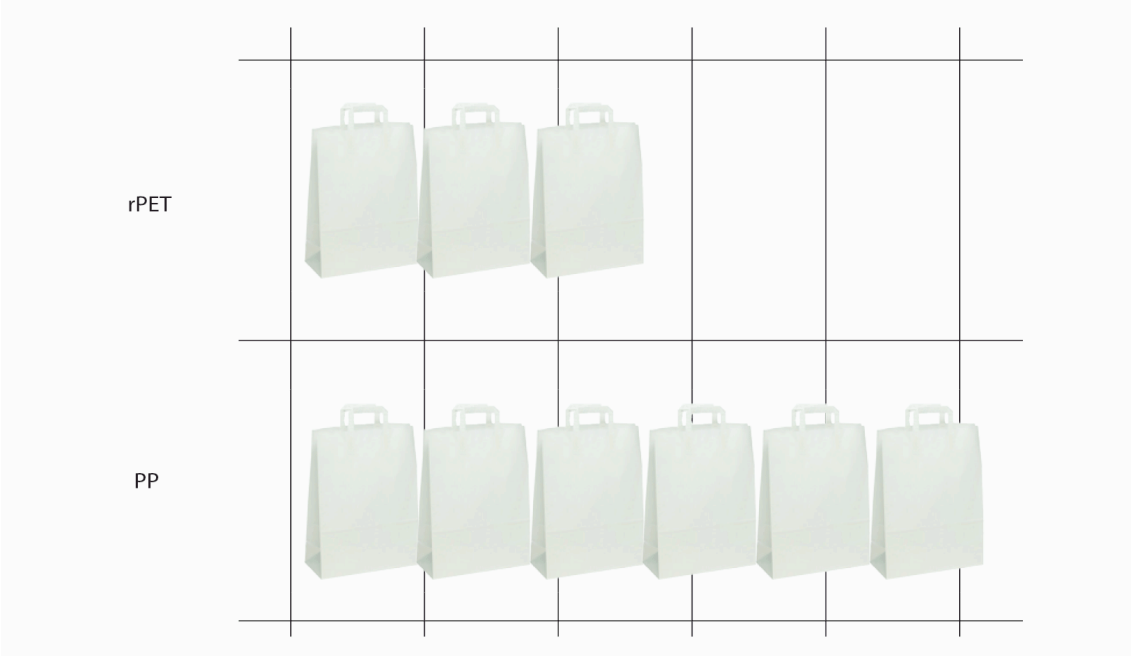
The climatop Certification

This is the first balance including rPET shopping bags which supplements the existing balance concerning PP and paper bags. Due to innovative changes in the texture, the rPET bag is certified as climatop-Champion. The current Champion, the PP shopping bag, keeps its certification until it expires.

Validity: 01/01/2012-31/12/2014

Results

If a rPET shopping bag is used three times, the product comparison shows that it causes significantly lower emissions than the PP and paper shopping bags. Compared with a PP bag, the rPET bag reduces the emissions by 50%. If the shopping bag made of PP is used six times more often than the paper bag, the CO_2 balance of the two products is equalised. If the synthetic bag is used eight times as often, the reduction of CO_2 emissions is of about 35%. Although, the transportation rout from China (PP bag) and Vietnam (rPET bag), respectively, is very long, its envirnonmental impact becomes less important, since it is a transport by sea.



Discussion

The environmental impacts caused by the production, usage and disposal of the synthetic bag is higher compared to the paper bags. By multiple usages, the total impact reduces. The different results between the PP and rPET bags are due to the greenhouse gases caused by the disposal of the synthetic materials. The emissions were only imputed to the balance of the PP product because the emissions of the rPET product had already been imputed to the balance of the primary product (f.ex. the PET bottle). Moreover, the production of rPET granules is compared to the production of PP granules less energy consuming.

Climate-Friendly Shopping

- Choose climate-friendly means of transportation. If you go by bus or tram instead of using your car, you can save on average about 90% of the climate charge caused by car driving.
- For short-distance shopping go by bicycle or by foot. It is not only more climate friendly, it is also good for your health.

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