

Facts about biodegradable plastic carrier bags

Listed below we would like to present some little known but very important facts that will help bring to light why carrier bags made from biodegradable materials are neither environmentally friendly nor economically feasible:

- 1. Generally, a biodegradable bag is composed of only 15-35% renewable resources.**
The remaining 65-85% of a bag's material composition is of an oil based specialty plastic.
- 2. Biodegradable bags need to be up to twice as thick as conventional bags to offer the same performance and durability.**
For example, the minimum required thickness for a biodegradable produce bag is 16 microns. Conventional produce bags generally need to be only 7 microns thick.
- 3. Biodegradable raw material is at least 3 times more costly than conventional plastics.**
Considering the higher raw material cost and that up to twice as much material is needed for production, biodegradable bags result in being about 6 times more expensive than conventional bags.
- 4. Biodegradable carrier bags degrade very slowly under natural conditions.**
Biodegradable plastic materials certified according to DIN EN Norm 13432 must degrade under specific industrial conditions by 90% within 12 weeks, too long for an industrial composting plant's degradation process.
- 5. Biodegradable bags do not degrade under ocean marine conditions.**
Biodegradable plastic are too dense to float on the water's surface and sink to the bottom of the ocean where conditions are not conducive to degradation.
- 6. The biodegradable bag's 'biodegradability' perception encourages littering.**
Consumers are less concerned with the disposal of biodegradable bags into the surrounding environment.

7. Biodegradable plastics contaminate conventional recycling streams.

Scientific research has shown that even 2% of biodegradable plastics in recycling streams result in significant negative impacts on recycled material quality.

ALDI and REWE learnt their lessons, the hard way

Unfortunately, most of these facts were not widely known when carrier bags first appeared on the German market. However, in 2012 an environmental conservation NGO namely, “Deutsche Umwelthilfe” discovered and aggressively publicised in the media their findings that highlighted the misleading nature of biodegradable bags.

The resulting negative publicity and accusations of knowingly deceiving their customers forced two of the biggest retailers in Germany - ALDI and REWE - to remove all biodegradable bags from their stores at significant material and reputational costs.

Subsequently, the **German biodegradable bag market has been dead.**

Political situation

Regardless of what happened in Germany, some producers and suppliers of biodegradable materials/bags continue to approach governments all over Europe in order to push their products into the market without even a mention of the facts that due to high costs, their product is not competitive and does not solve littering and waste issues. Instead, they attempt to influence and initiate legislation that aims to, for example ban or tax alternative competing plastic bag solutions with the exemption of biodegradable bags.

Italy, France, Spain and now England are examples of countries that are discussing allowing biodegradable bags preferential status - despite the fact that such legislation is not in line with EU law to begin with.

Conclusion

Given the characteristics biodegradable bags have shown evident today, it is clear to see that they lack any advantage be it by cost, competitiveness or even for the environment and as to why the biodegradable industry is so desperately pursuing preferential status to offset these weaknesses in order to remain relevant in the industry.