

Eco-Auditing



Project

My Project is about analysing the material of the Herschel sleeve and compare it to an alternative material that is better recyclable than polyester. I will analyse the sleeve being imported from Canada, where it gets produced, to Finland.

Herschel is particularly famous for its rucksack. It is affordable and looks nice. The brand is Canadian and settled in Europe a couple of years ago. They claim to be “a design driven global accessories brand that produces quality products with a fine regard for detail.” (Herschel, 2016) I am particularly interested in the Herschel products because they are so popular. Everyone buys them but what is behind the “cool” appearance? Does it produce sustainable products?

Object

This is the popular Herschel Rucksack and next to it the Sleeve that I will analyse.

It consists of

1. Cover-textile (Polyester): 200g
2. The lining (Polyester-Foam): 50g
3. A Zipper (Polyester): 100g



Boundaries

Herschel products are completely made in China and then shipped to Canada, which puts a high travel distance on the sleeve. From Canada, they are shipped to the whole world including Finland.

Primary Stakeholders:

The Customers

The Employees

The Manufacturer in China

The Ship's freight Canada - Finland

Land Transport Canada - Finland

Wholesales Companies around the World

Secondary Stakeholders:

Legislation Boarder, Local and Global Laws

Competitors

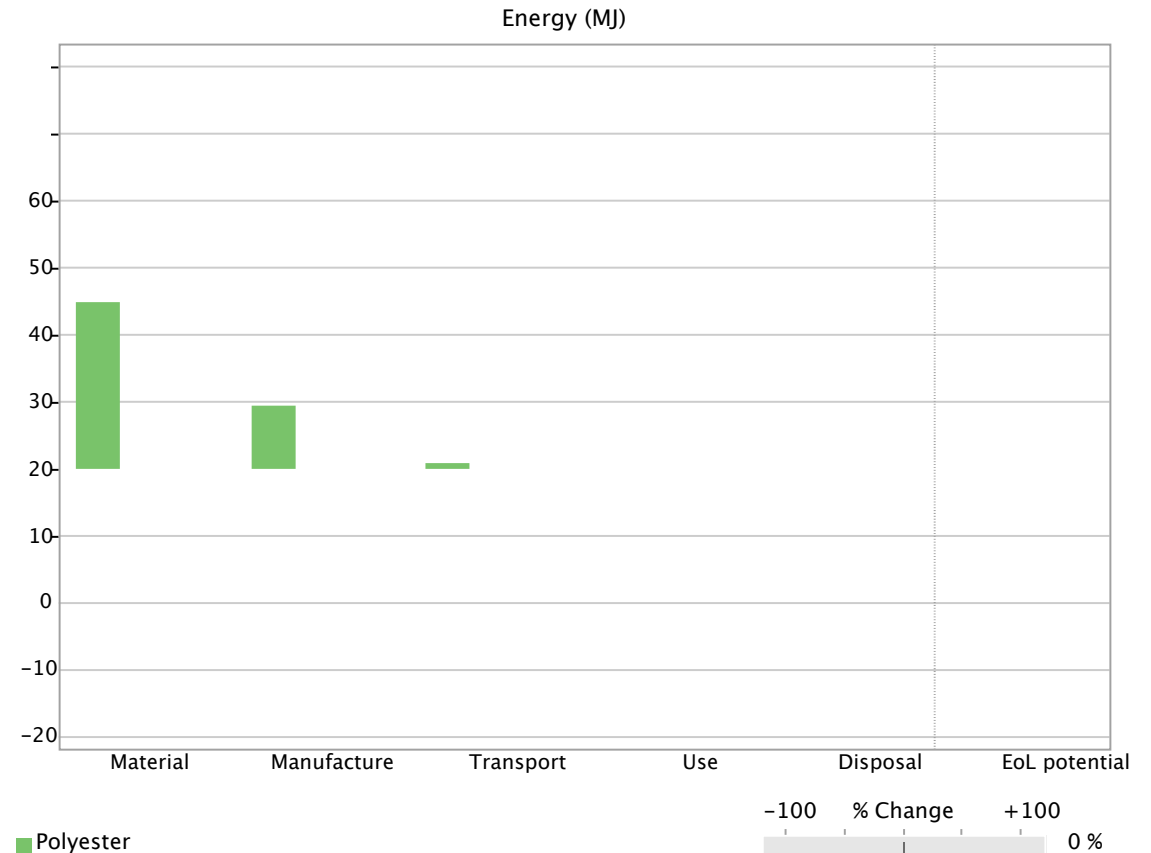
Media, especially social Media

Consumer Advocate Groups

Analysis

For my analysis I asked myself the question, what is the need, this sleeve has to fulfil? Its basic function is to protect a laptop. For this reason it needs to be robust but soft at the same time. It would also be nice if it was water repellent, in case it starts to rain. Secondly, it needs to be very light because it will be transported a lot. And finally, it has to look appealing, because the owner will look at it a lot and might even take it to meetings where it has to look presentable.

Today, the sleeve is completely made out of polyester which is plastic and therefore is impossible to recycle or reuse once its life is over. As we can see in the chart below, the material itself and its manufacturing uses a lot of energy and there is no end of life potential at all.



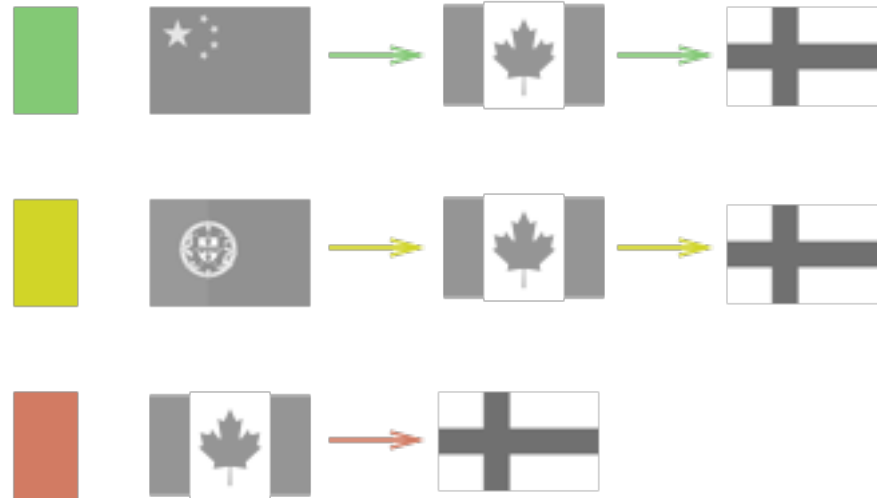
Analysis

I decided to look for alternative materials that fulfil the criteria of being, light, soft and look good. I stumbled upon cork. Cork is the phellem layer of the bark tissue and is mostly grown in Portugal. The material is rather soft and looks very nicely. In order to fully recover, the birch trees in Portugal are protected so that a harvest is only possible every nine years per tree. The material is also water repellent and completely biodegradable (Corkforest, 2016). I was convinced that this material is the perfect alternative to polyester. Eventually, I decided to add a second material to compare it to polyester just to be a bit broader on the selection. I added leather, which has similar qualities of being soft, protective, not very water repellent but it can be reused easily in contrast to cork. Both, leather and cork sleeves can be made out of just a sleeve and a metallic button, which decreases the amount of material used. The following pictures show how the different sleeves (could) look like, the polyester sleeve in the back, the cork in the middle and the leather sleeve in the front.



Distances

From a travel point of view, the three materials make a small difference with the leather coming from Canada and the Cork from Portugal, compared to polyester from China. At the end they all need to be transported from Canada to Finland, which adds on a lot of km. (Also see graph on p. 8)

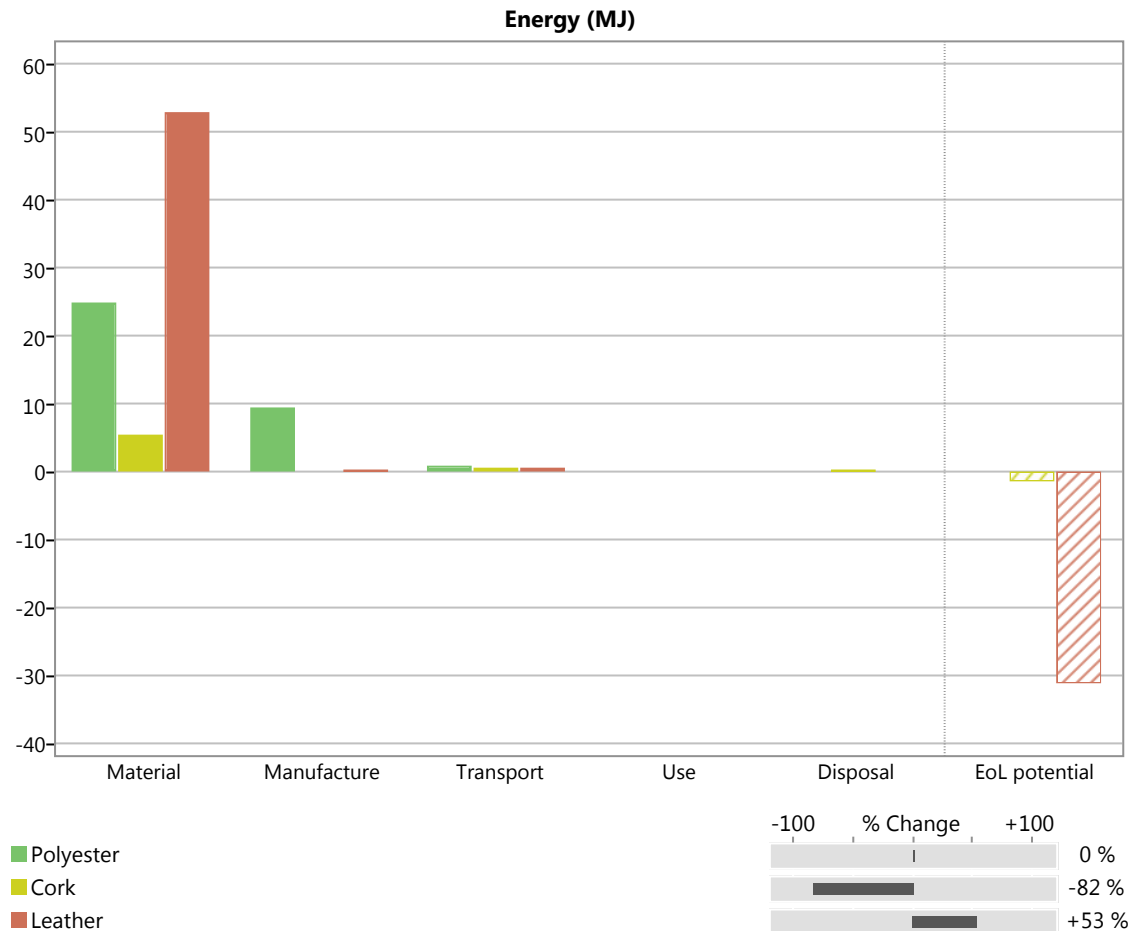


Contrast

The travel distance was not my area of interest for this analysis, but rather the end of life potential, which changed a lot depending on the material. I compared the two materials to polyester in the CES Modul and was very surprised about the result.

I was rather sure that cork will make the race but overall the leather doesn't make a bad job compared to polyester. Even though it uses twice as much energy as a material itself compared to polyester and ten times more compared to cork, leather has a very high potential at the end of life. Polyester can not be recycled or reused at all and cork has its highest EoL potential when combusted. Leather can be re-manufactured and therefore get a complete second life.

Only looking at the energy, cork is the best option, making the difference with a relative low material energy and a small EoL potential.



Conclusion

My initial goal was to find an alternative material to the Herschel macbook sleeve that is completely made out of Polyester.

I compared it to cork and leather, replacing the zipper by a simple button. Both, leather and cork have a smaller travelling distance in total coming to Finland. Cork is a very good alternative to polyester, it is completely degradable and waterproof. There is no clear winner of the analysis to me. In spite of having a very high energy consumption to get the material in the first place, leather is the most long lasting material of all, which means that it can be re-used at the end of life and transformed into something new. Cork on the other hand uses almost no energy as a material and has an energy + at the end of life unlike polyester who has no EoL potential at all.

I was very surprised about the outcome. Thinking about using leather, the skin of an animal, I might personally choose the cork option over leather.

References:

- Herschel, 2016: <https://www.herschelsupply.com/about/>
- Corkforest, 2016: <http://www.corkforest.org/>