



# Environmental Impact Product Study for Sterko BV

Koen Goorman,  
Natural Science Engineer

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ENGINEERING

## Goal of study

- **Determine environmental impact of commonly used hair colouring foils**
  - Wrapix hair colouring paper
  - Hairdresser Aluminium foil 15 $\mu$ m
- **Study is conducted in the period dec 2019-jan 2020**

## Scope of study

- Conduct two product Life Cycle Assessment studies to calculate environmental impact of both products of ISO 14040 & 14044
- LCA software supplied by Ecochain
- Report on the comparison of environmental impact, serving as a base for environmental product claim of ISO 14025.

## Scope of LCA

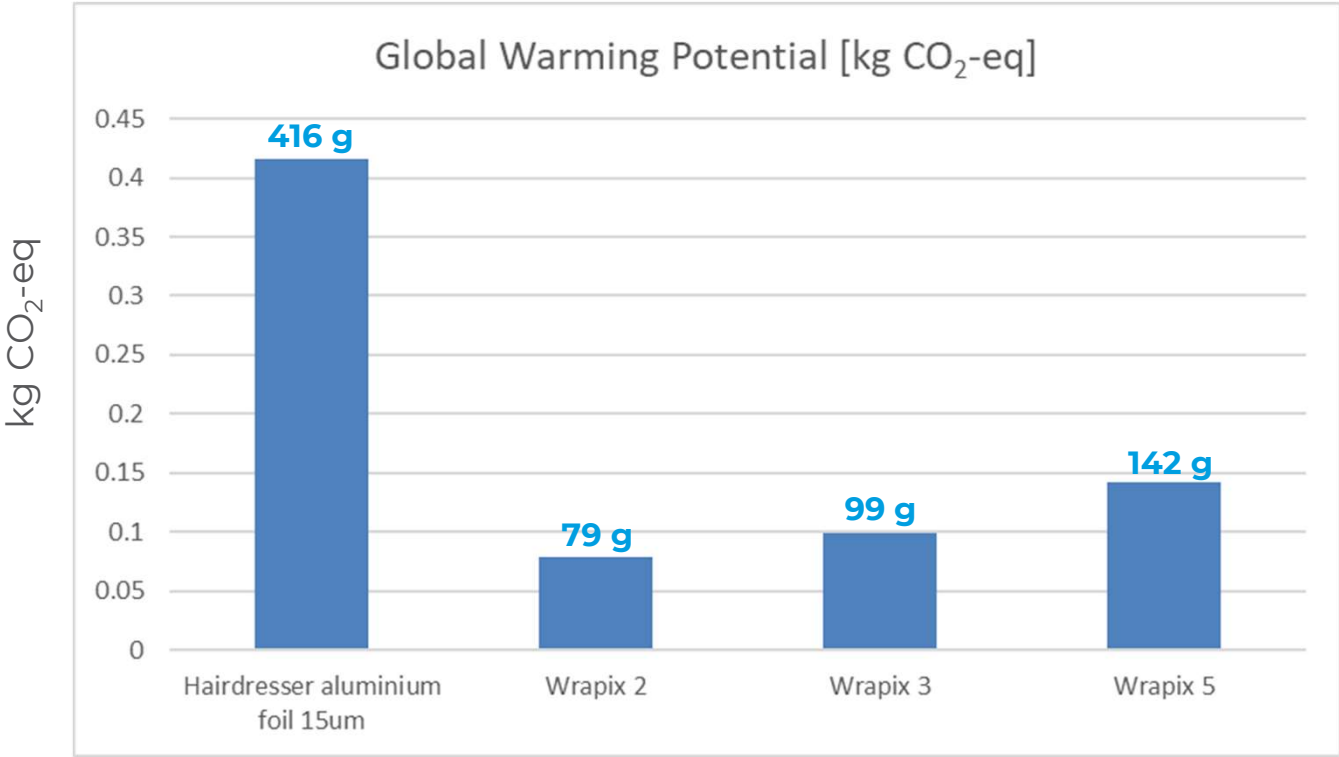
- **Cradle to gate**
  - Including most probable transport routes and means
- **End-of-life impact of used product, disposed via unsorted municipal waste because of chemical contamination and incinerated**
- **Use stage of product is out of scope**
- **Impact categories**
  - Climate change (Global Warming Potential)
  - Use of primary energy
  - Use of fresh water
- **Reference unit: 1m<sup>2</sup>**

## Product description

- **Wrapix 2, 3 & 5 hair colouring paper**
- **Hairdresser Aluminium foil 15µm**

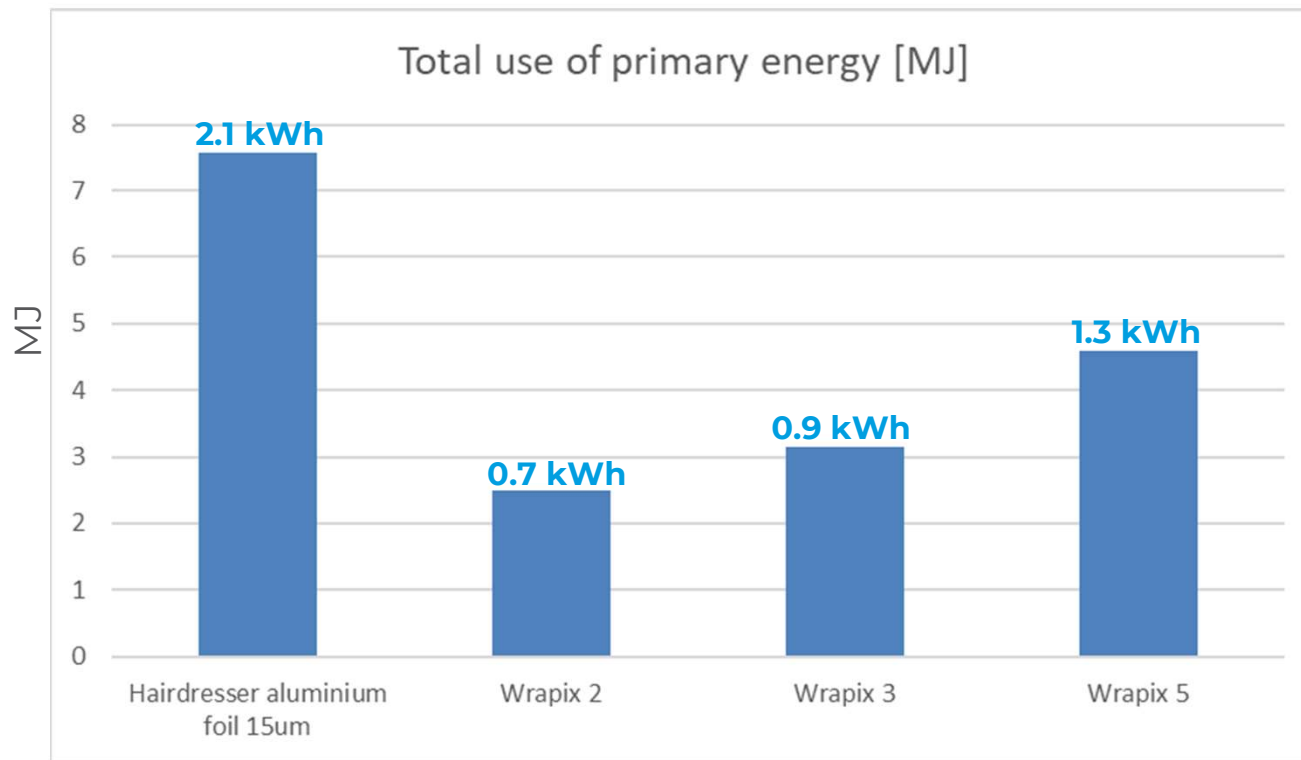
# Results

Per m<sup>2</sup>



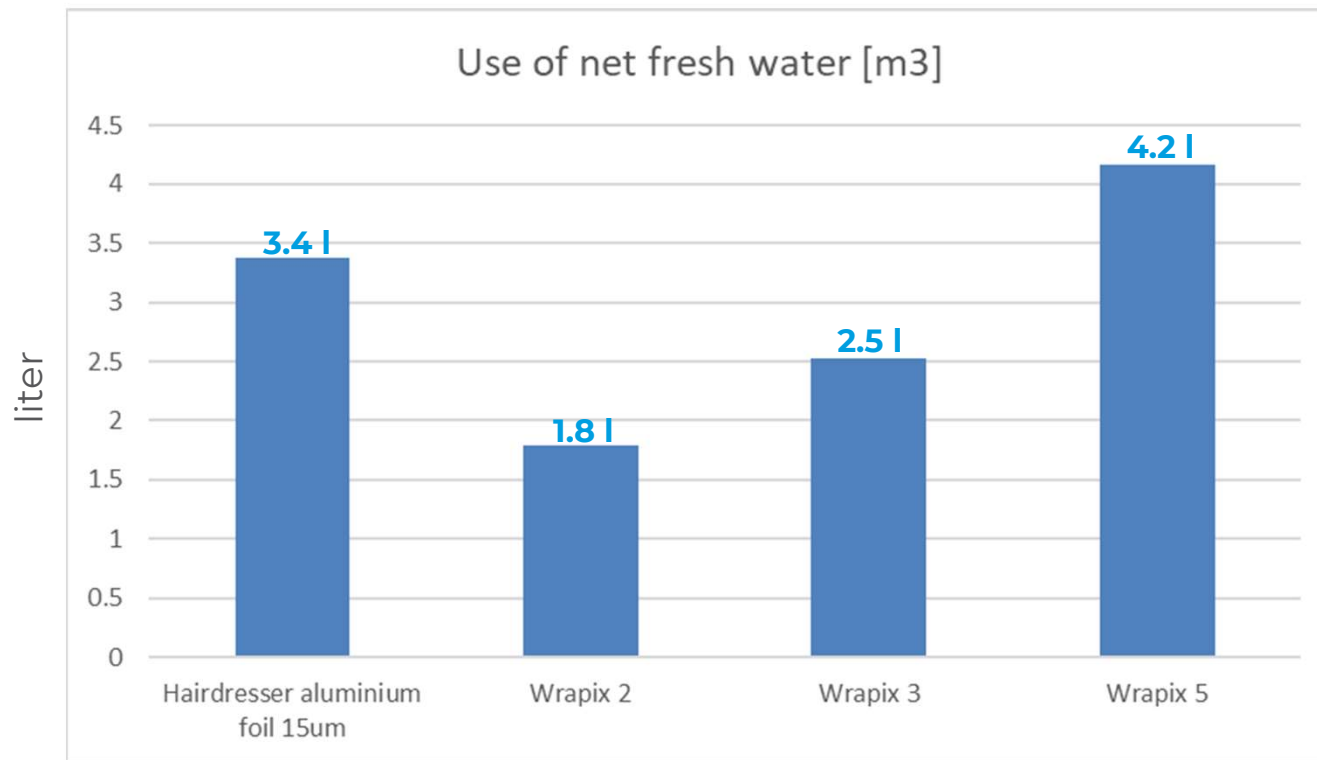
# Results

Per m<sup>2</sup>



# Results

Per m<sup>2</sup>





## Conclusion

- **Wrapix hair colouring paper has significantly less environmental impact than aluminium foil**
  - Wrapix 2 has **5.3** times less CO<sub>2</sub>-eq emissions than alu foil
  - Wrapix 3 has **4.2** times less CO<sub>2</sub>-eq emissions than alu foil
  - Wrapix 5 has **2.9** times less CO<sub>2</sub>-eq emissions than alu foil
- **In most impact categories the materials are largest contributor**
- **Transport and end of life incineration have modest impact**



**THANK YOU  
FOR YOUR ATTENTION**

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