

## climatop-Certification: Hand-Drying

### Climate Balance: Hand-drying

By calculating the CO<sub>2</sub> balance of hand-drying methods, the most products were compared: climate friendly way to dry hands can be shown. The following



Dyson Airblade™ Mk2 Aluminium casing AB06 Cold-Air Drying	Dyson Airblade™ Mk2 Polycarbonat-ABS- casing, AB07 Cold-Air Drying	Dyson Airblade™ V Sprayed Nickel AB12 Cold-Air Drying	Dyson Airblade™ Tap AB10 Cold-Air Drying	Conventional Hand Dryer, World Dryer Warm-Air Drying	Paper Towel (recycled) 2 Towels per hand-drying	Paper Towel ( Virgin Pulp Paper) 2 Towels per hand-drying	Textile Roller Towel One Pull on the Textile Roller
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### The Comparison

The climate impact of drying hands once with one of the different hand-drying methods was compared.

The greenhouse gas emissions for the whole life cycle of the products were measured, i.e. from the production of the raw materials to the transportation, the production at the factory, the usage of the products through to the disposal of waste materials and the devices themselves. 200 utilizations per day over a life time of 5 years were assumed.

### climatop-Certification

This is the obligatory post-balance concerning hand-drying methods which was conducted after the expiration of the old certification. In addition to updating the Dyson Airblade™ models Mk2 aluminium and plastic, the Dyson Airblade™ models V and Tap have been calculated. Due to re-assessed good results, all Dyson Airblade™ models are certified with the climatop label. The certification is valid for two years; then a new re-evaluation is necessary.

### Results

The product comparison (fig. 1) shows that hand-drying with either type of Dyson Airblade™ hand dryers causes the lowest emissions. The most decisive reasons for the good performance of the Dyson Airblade™ hand dryers are their lower consumption of electricity compared with conventional warm-air hand dryers and the fact that Dyson Airblade™ hand dryers negate the need for energy-intensive paper or textile towel production, as well as the need for energy-intensive cleaning and drying of textile roller towels.

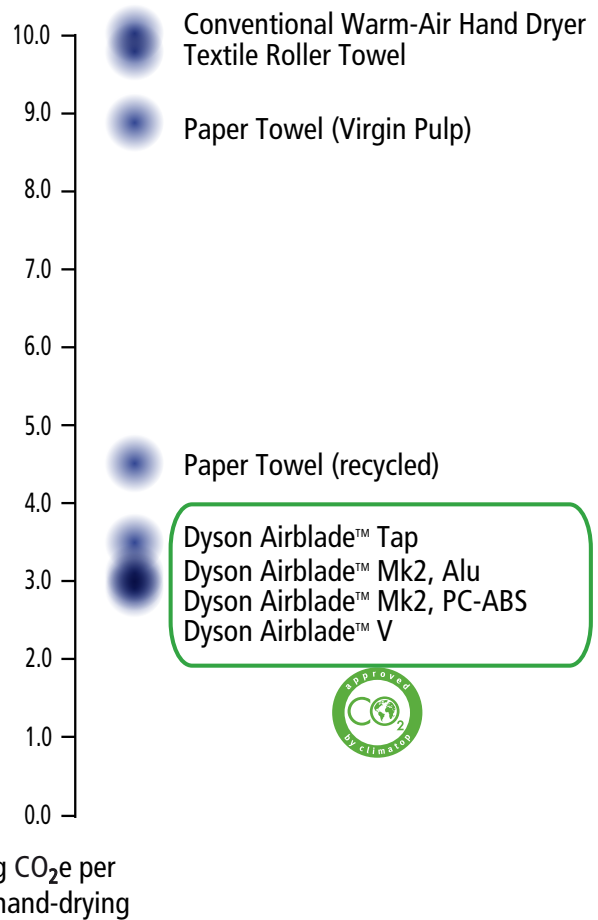


Fig.1: Greenhouse gas emissions per one-hand drying calculated with the European electricity mix.

**Validity:** April 2013 - March 2015



## Discussion

Fig. 2 and fig. 3 show which step of the life cycle causes the largest impact as well as the differences which emerge between the various hand-drying methods.

The emissions due to the production of the Dyson Airblade™ hand dryers are larger compared to conventional hand dryers. The Dyson Airblade™ hand dryers have fewer total emissions than conventional ones, since these apparatuses are more efficient.

The consumption of electricity is three times higher for conventional hand dryers than for cold-air hand dryers from Dyson Airblade™.

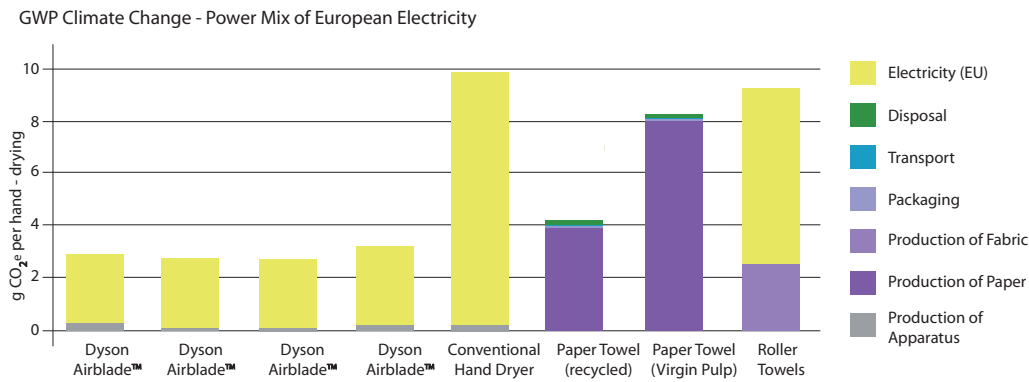


Fig. 2: Climate change based on calculations with the European power mix.

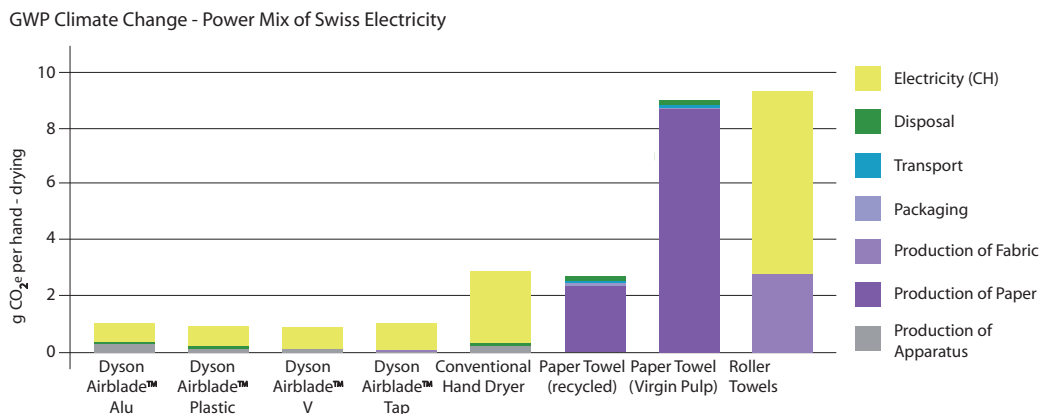


Fig. 3: Climate change based on calculations with the Swiss power mix.

For paper towels, the production of paper is the main contributor to the total environmental impact. Considering the textile roller towels, the washing step, which depends on fossil fuels, as well as the production of the fabric, contribute the most part to the total greenhouse gas emissions.

Due to the diversity of the different electricity sources, there are opportunities for the consumer to choose climate-friendly solutions. This is an alternative way to further lower the greenhouse gas emission.

## Environmental Impact

Regarding the overall environmental impact of the compared products, calculated by the Swiss method of ecological scarcity (UBP/eco points), we receive similar results: Dyson Airblade™ products have significantly lower total environmental impact compared to conventional hand dryers.

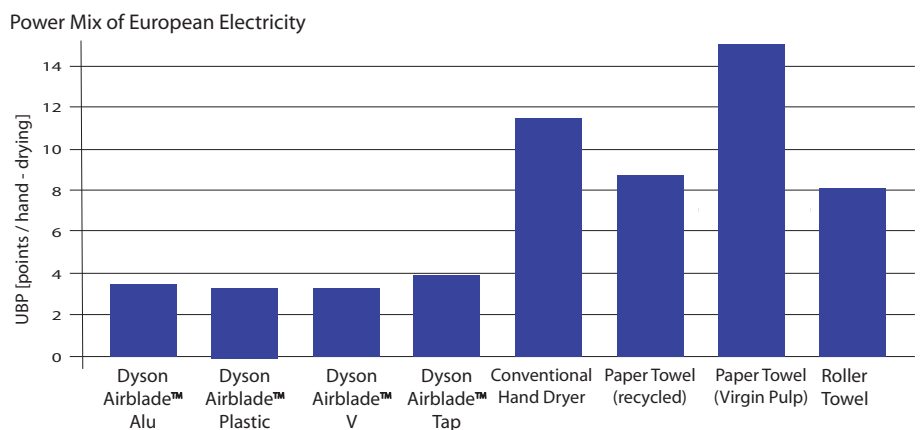


Fig. 4: Total environmental impact expressed in eco points (UBP points)

