

Further information to carbon footprint data used Tork Focus4 Sustainability

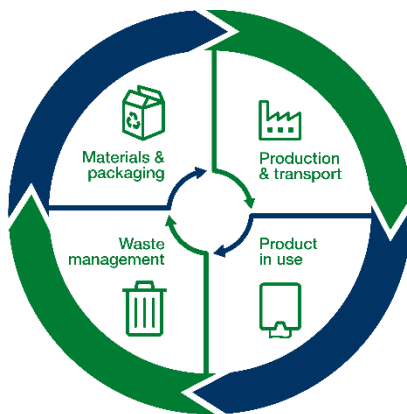
Introduction

Tork is sharing carbon footprint averages for our systems to give an indication of the climate impact in use and to provide a simple way to compare the different Tork systems from a carbon footprint perspective.

Why do we share the carbon footprint “per use”?

To make relevant comparisons of the carbon footprint of different products, the product function must be considered. The function of a tissue product is reflected by the amount of tissue used per user occasion. Comparing the carbon footprint of different Tork systems should therefore be done “per use” rather than per transport unit or per weight. The “per use” value includes functionality of Tork dispenser systems with consumption control, which helps to reduce consumption and thereby also carbon footprint in use.

What is included in the carbon footprint?



Product life cycle

The carbon footprints are based using the life cycle assessment method. The **cradle-to-grave** carbon footprint covers all emissions in the product life cycle, from extraction of raw materials through production & transports to waste management of the used product, while the **cradle-to-gate** part only covers the emissions until the product is ready to leave the Essity manufacturing unit gate.

The cradle-to-gate part is Essity and Tork specific, and the average impact per gram of tissue is the same for all product users independently of where they are located. The distribution and waste management after use, can vary between users depending on where they are located, and the actual waste management applied. A Tork average European scenario has been used for this part.

The system average reflects the carbon footprint of the refills. The carbon footprint of the dispensers is excluded since the dispenser stands for a negligible part of the overall system carbon footprint.

How have the system averages been calculated?

The data represents a weighted *system average carbon footprint per use*. This means that it is an average of all Tork branded refills in all quality tiers produced for the system, their cellulose fiber mixes, paper machine technologies, production sites, distribution, waste management and consumption per user occasion. The average is weighted by Tork European sales volumes in metric tons in 2023.

- The cradle-to-gate data used for Essity’s own operations as well as for the cellulose fibre supply is specific. The location-based approach has been used in modelling electricity.
- The gate-to-grave data is based on a 1000 km assumed distribution distance and the waste management regime 75% incineration and 25% landfill. This represents the sales volume weighted average waste management in the markets where Tork tissue refills are sold.
- The cradle to grave result includes biogenic CO₂ emissions and removals, while the cradle-to-gate result does not include the biogenic removals associated with the carbon bound in the product.
- The consumption per user occasion is based on consumption data (sheets or meters per use) and average product weight (per sheet or meter). The consumption data is based on consumption studies done at restaurants, office buildings & universities in Europe, and the product weight is based on product specifications for the Tork European assortment.

Which standards and guidelines have been used? And has this been third party reviewed?

The life cycle assessments are compliant with the international standards for life cycle assessment (LCA), ISO 14040 and ISO 14044. They are also guided by ISO 14067 regarding the calculations of carbon footprint and biogenic carbon and the Product Category Rules for tissue products from the International EPD system regarding e.g. system boundaries and data selection.

The approach used for calculating the system average carbon footprint per use as well as the life cycle assessments used as a basis for the carbon footprints have all been subjected to critical reviews by third-party auditors.

The system averages are intended to provide a simple way to compare the different Tork systems from a carbon footprint perspective across the European market. However, if the data is compared with carbon footprints from other companies and/or non Tork branded products, the comparison should be made with caution, also if the studies behind are compliant with the international standards for LCA. Before comparing data and studies, it must be secured that the scope, assumptions and context of the studies are equivalent in terms of for example methodology, scope, data selection, allocation methods etc.

The data is not intended to be used in carbon reporting for specific articles and consumption. The actual carbon footprint from using a product will depend on the specific product used, the actual amount used per user occasion as well as the waste management after use. The consumption, and thereby the total carbon footprint, can be reduced by using Tork systems with consumption control. The waste management will have a lower carbon footprint when the product is recycled through Tork PaperCircle® (for hand towels), industrially composted (for napkins) or incinerated with energy recovery, while if the product ends up in landfill it will have a higher carbon footprint.

The table below shows the system averages and the consumption data used as input to the calculation.

Tork system	Consumption data	Cradle-to-gate	Cradle-to-grave
Hand towels	Towels per use	gCO ₂ e per use	
H1 Tork Matic®	2.3	8.5	11.9
H2 Tork Xpress® Multifold	2.3	8.0	11.7
H5 Tork PeakServe®	2.3	5.9	8.0
Toilet paper	Meters per use	gCO ₂ e per use	
T7 OptiServe® Coreless	1.3	4.0	5.7
T8/T9 SmartOne®	0.6	2.6	3.8
Napkins	Napkins per use	gCO ₂ e per use	
N4 Xpressnap®	1.4	2.2	3.5
N14 Xpressnap Fit®	1.6	2.4	3.8