



Tork®, Purex® and Sorbent® Toilet Tissue

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An EPD should provide current information and may be updated if conditions change. The stated validity is therefore subject to the continued registration and publication at www.environdec.com

Essity Australasia

Essity Australasia is a leader in Personal Care and Hygiene across Australasia, offering products that provide care, comfort and confidence every day.

The Company manufactures, markets, distributes and sells essential, everyday consumer products including tampons, pads and liners, nappies, toilet and facial tissue, paper towels and napkins. Our popular products are recognised household brands like Libra, TENA, Sorbent and Purex, Handee Ultra, Viti and Orchid.

Our professional hygiene products, which include hand towels, napkins, toilet and facial tissue, soaps and other hygiene accessories, are sold under the Tork brand to the hospitality sector, offices, schools, hospitals, shopping centres and industrial companies. Our TENA Incontinence Healthcare products and support services are provided to healthcare professionals in residential and community care facilities, retirement villages and hospitals.

Essity Australasia has 14 manufacturing and distribution facilities across Australia, New Zealand and the Pacific Islands. For more information, visit www.essity.com.



Brands in this Environmental Product Declaration



Tork is the leading global brand in professional hygiene. From toilet tissue in universities to sports stadiums and hospitals, Tork delivers a great experience for the user and a convenient experience for the buyer. Tork is dedicated to serving your needs in a sustainable way – saving you time, money and effort, so you can focus on what matters most to your business. Visit www.tork.com.au or www.tork.co.nz to find out more.



Purex was born in 1955. Founded on Kiwi ingenuity and harnessing the local Kawarau resources, Purex was the first New Zealand toilet roll that was both soft and strong, helping to make life a little more comfortable for all New Zealand families. Purex grew to be loved and trusted in homes across New Zealand and has been a market-leading brand for many years. Today, true to our values, we endeavour to tiptoe on the environment, nurturing and protecting our world for today and tomorrow's generations.



Sorbent was introduced to New Zealanders in the late 1990s and became a much-loved addition to the bathrooms of loyal consumers wanting a premium toilet tissue. In 2014, due to overwhelming New Zealand demand, Sorbent began local manufacturing in Kawarau, New Zealand.



Sustainability – a core part of how we do business

Sustainability is built into our Tork, Sorbent and Purex toilet tissue products from the start:

We begin with 100% responsibly-sourced non-controversial pulp. In particular, we are committed to purchase pulp and paper reels consistent with No Deforestation, No Peat, No Exploitation (NDPE) policies adopted by the forestry and palm oil industries. All the wood fiber we source and use must come from suppliers that are certified according to the Forest Stewardship Council® (FSC®) or Program for the Endorsement of Forest Certification (PEFC™). Our demand is that the fiber at a minimum will always meet the FSC Controlled Wood standard, which means that the origin of the fiber has been verified by an independent third party. 100% of the pulp that enters our Kawerau paper machines is from suppliers that are certified to FSC standards, with a minimum of 70% FSC Mix sourced fiber and a maximum of 30% FSC Controlled Wood sources. To learn more about FSC standards and labels, please visit: www.fsc.org

We then manufacture paper locally, using a large share of renewable energy. We are proud to manufacture the products in this Environmental Product Declaration in Kawerau, New Zealand. Our Kawerau operation is certified to ISO 9001, ISO 14001, AS/NZS 4801 and FSC chain of custody. In 2010, we replaced most of our natural gas consumption with geothermal steam in an ongoing partnership with Ngāti Tūwharetoa Geothermal Assets. In addition, our site's electricity comes from the New Zealand grid, comprising 84% renewable energy in 2018 (MBIE 2018). Consequently, since 2009 we have more than halved the greenhouse gas emissions generated from our Kawerau plant.

We focus on continuous improvement at Kawerau and in the past decade we have reduced water consumption by over 30%, reduced waste to landfill by a third and almost doubled our waste recycling rate.

This EPD helps to demonstrate Essity's commitment to sustainability and complements our work with eco-label and sustainability organisations such as FSC, Environmental Choice New Zealand, Sedex and the Dow Jones Sustainability Index.



Essity Paper Mill
Kawerau, New Zealand

Environmental Product Declaration (EPD)

An Environmental Product Declaration, or EPD, is a standardised and verified way of quantifying the environmental impacts of a product based on a consistent set of rules known as a PCR (Product Category Rules). Environmental Product Declarations within the same product category from different EPD programmes may not be comparable.

Products covered by this EPD

All products in this EPD are covered by the following industry classifications: ANZSIC v1.0 C152400 "Sanitary Paper Product Manufacturing" and UN CPC v2 32131 "Toilet or facial tissue stock, towel or napkin stock and similar paper, cellulose wadding and webs of cellulose fibres".



Tork Extra Soft Conventional Toilet Roll T4 280 Sheet Premium (48 rolls per pack)

- Two ply, white toilet tissue
- FSC Mix 70% certified
- Dimensions: 9.9 cm wide x 30.8 m long (280 sheets)
- Net weight per roll: 116 g
- **Article number: 2170336**



Tork Soft Conventional Toilet Roll T4 400 Sheet Advanced (48 rolls per pack)

- Two ply, white toilet tissue
- FSC Mix 70% certified
- Dimensions: 9.9 cm wide x 39.6 m long (400 sheets)
- Net weight per roll: 119 g
- **Article number: 234**
- Also available in 4s and 16s without the individual wrapping
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Tork Soft Jumbo Toilet Roll T1 Advanced (6 Pack)

- Two ply, white toilet tissue
- FSC Mix 70% certified
- Dimensions: 9.2 cm wide x 320.0 m long (continuous roll)
- Net weight per roll: 893 g
- **Article number: 2179144**



Tork Jumbo Toilet Roll T1 Universal (6 Pack)

- Single ply, white toilet tissue
- FSC Mix 70% certified
- Dimensions: 9.2 cm wide x 650.0 m long (continuous roll)
- Net weight per roll: 1,024 g
- **Article number: 2179142**



Tork Soft Mini Jumbo Toilet Roll T2 Advanced (12 Pack)

- Two ply, white toilet tissue
- FSC Mix 70% certified
- Dimensions: 9.2 cm wide x 200.0 m long (continuous roll)
- Net weight per roll: 558 g
- **Article number: 2306898**



Tork Mini Jumbo Toilet Roll T2 Universal (12 Pack)

- Single ply, white toilet tissue
- FSC Mix 70% certified
- Dimensions: 9.2 cm wide x 400.0 m long (continuous roll)
- Net weight per roll: 630 g
- **Article number: 2306897**



Products covered by this EPD (continued)



Purex Mega Roll (available in packs of 4, 6 and 12 rolls)

- Two ply, white toilet tissue
- FSC Mix 70% certified
- Dimensions: 9.9 cm wide x 49.5 m long (450 sheets)
- Net weight per roll: 167 g
- **Article numbers: 2302644 Mega White 4s**
- **Article number: 2309198 Mega White 6s**
- **Article number: 2320367 Mega White 12s**



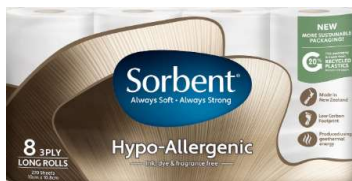
Purex Standard Roll (available in packs of 4, 12 rolls)

- Two ply, white toilet tissue
- FSC Mix 70% certified
- Dimensions: 9.9 cm wide x 22.0 m long (200 sheets)
- Net weight per roll: 74 g
- **Article number: 2264599 White 4s**
- **Article number: 2294521 White 12s**



Purex Standard Roll (available in packs of 24 rolls)

- Two ply, white toilet tissue
- FSC Mix 70% certified
- Dimensions: 9.5 cm wide x 22.0 m long (200 sheets)
- Net weight per roll: 71 g
- **Article number: 2304297**



Sorbent Long Roll (available in packs of 4, 8)

- Three ply, white toilet tissue
- FSC Mix 70% certified
- Dimensions: 10.0 cm wide x 29.2 m long (270 sheets)
- Net weight per roll: 143 g
- **Article number: 2314219 Silky White 4s**
- **Article number: 2314220 Silky White 8s**

Sorbent Long Roll Hypo-allergenic (available in packs of 8, 12)

- Three ply, white toilet tissue
- FSC Mix 70% certified
- Dimensions: 10.0 cm wide x 29.2 m long (270 sheets)
- Net weight per roll: 143 g
- **Article number: 2314217 12s**
- **Article number: 2327254 8s**

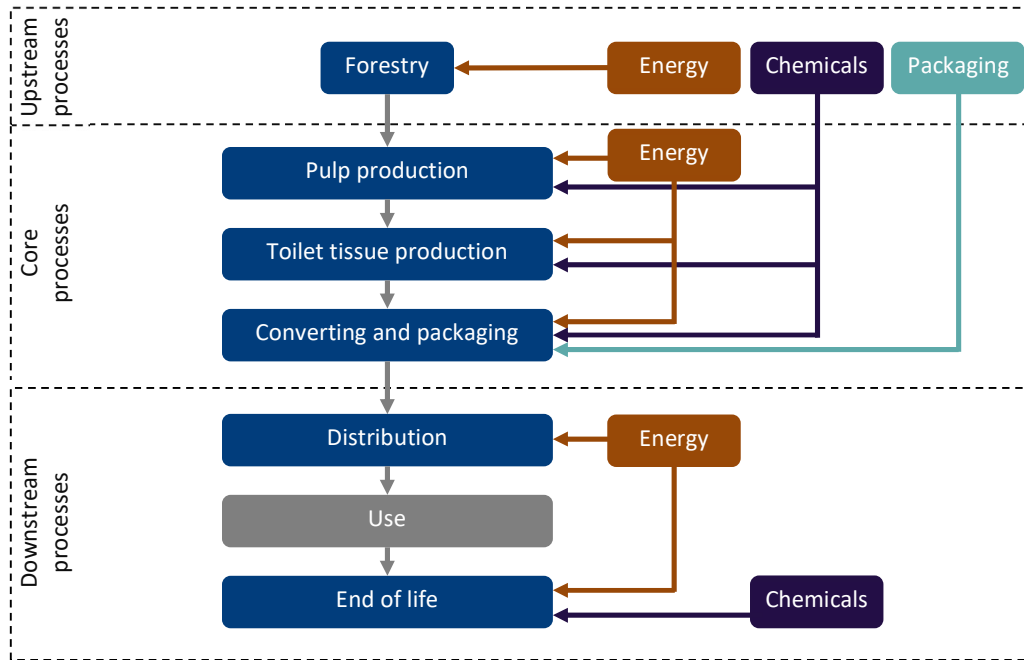
Sorbent Thick & Large Roll (8 rolls)

- Three ply, white toilet tissue
- FSC Mix 70% certified
- Dimensions: 11.6 cm wide x 25.4 m long (210 sheets)
- Net weight per roll: 146 g
- **Article number: 2325518**

Sorbent Thick & Large Roll Hypo-allergenic (8 rolls)

- Three ply, white toilet tissue
- FSC Mix 70% certified
- Dimensions: 11.6 cm wide x 25.4 m long (210 sheets)
- Net weight per roll: 146 g
- **Article number: 2325392**

Life cycle of toilet tissue products



This EPD covers the full life cycle of toilet tissue from cradle-to-grave.

The life cycle starts with (1) forestry to grow wood fibre, (2) production of the chemicals needed to make paper from wood fibre, (3) production of packaging materials, and (4) production of energy for these process steps. These are the **upstream processes**.

Wood chips/residues, chemicals and fuels are transported to pulp mills, where wood pulp is made from wood fibre. This pulp is then transported to Essity's paper mill where it is formed into paper, cut to size ('converted'), packaged and then warehoused. These steps also require energy to be produced, and for both solid waste and wastewater to be treated. These are the **core processes**.

Finally, packaged toilet tissue is transported to customers. As the use of a toilet tissue has no direct environmental impacts, use is not included in this EPD. The final step is end-of-life, where the toilet tissue goes to a wastewater treatment facility and the packaging waste is disposed. These are the **downstream processes**.

Key parameters and assumptions for the LCA

- **Declared unit:** 1 tonne (1000 kg) of toilet tissue , plus packaging.
- **Manufacturing site:** All products are manufactured in Kawerau, New Zealand.
- **Distribution to customer:** Distribution from the manufacturing plant to customer via Essity's warehouses is based on a sales-weighted average of the distances travelled in each transport mode (truck and container ship).
- **End of life:** 100% of toilet tissue is assumed to go to a municipal wastewater treatment plant. As there are no readily available average wastewater treatment life cycle inventories for Australia or New Zealand, the LCA model is based on Auckland's plants (Watercare, 2013). The electricity mix and sludge treatment have been adapted to reflect average Australian and New Zealand conditions. This results in electricity use of 1.15 MWh/t dry biosolids in Australia and 1.40 MWh/t in New Zealand. Direct emissions have been calculated based on the average elemental composition of paper from the Phyllis2 database (ECN 2012) – 50.2% C, 42.5% O, 6.9% H, 0.3% N and 0.1% S – as no product-specific data were available. This absolute-dry composition has been adjusted to 10% water content in line with the international definition of air-dry paper. The split of treatment between Australia and New Zealand is determined by annual product sales figures from 2018.

100% of polyethylene film packaging is assumed to go to landfill. While film packaging can be recycled in some locations, this practice is currently limited in Australia and New Zealand.

77% of paper and cardboard packaging is assumed to be recycled, with the remainder landfilled. This is based on the Australian average for 2013-14 (APC 2014). The recycling rate in New Zealand is likely to be similar but is not available due to uncertainties (PCNZ 2015). No credits are applied for recycling paper or cardboard in line with the PCR 2011:05 (IEPDS 2022).

All landfill and recycling assumes truck transport of 50 km outbound with an empty backhaul.

- **Biogenic carbon emissions from wastewater treatment:** Chemical oxygen demand (COD) from toilet tissue is approximated by theoretical oxygen demand (ThOD), calculated following OECD (1992) as 1.315 mg O₂ / mg paper. Emissions rates for Australia and New Zealand were calculated as 1,406 kg CO₂ and 27 kg CH₄ per air-dry tonne of paper for Australia (based primarily on Australian Government 2015) and 1,333 kg CO₂ and 39 kg CH₄ for New Zealand (following New Zealand Government 2015).
- **Data for core processes:** Primary (specific) data were collected from Essity and our pulp suppliers as per the PCR 2011:05 (IEPDS 2022). Data are an annual average for the 2021 calendar year. Mono-nitrogen oxides (NO_x) have been modelled as nitrogen dioxide (NO₂) and Total Reduced Sulfur (TRS) has been modelled as hydrogen sulfide (H₂S).
- **Data for upstream and downstream processes:** Secondary (generic) data were used for forestry, chemical production, packaging materials and electricity, as allowed under the PCR 2011:05 (IEPDS 2022). All data are from the GaBi Life Cycle Inventory Database 2022 and are typically representative of the years 2018 to 2024, depending on the dataset (Sphera 2022).
- **Electricity mixes:** All electricity is based on New Zealand's national electricity production mix for 2018 from the GaBi Life Cycle Inventory Database 2022 (Sphera 2022).
- **Allocation:** Where required, co-product allocation using the most relevant physical quantity (mass, energy or exergy) was applied for core processes. Allocation rules for secondary data (upstream/downstream processes) are documented on the GaBi website (Sphera 2022). Recycling allocation follows the polluter pays principle in line with IEPDS (2017).
- **Cut-off criteria:** Environmental impacts relating to personnel, infrastructure, and production equipment not directly consumed in the process are excluded from the system boundary as per the PCR 2011:05 (IEPDS 2022). All other reported data were incorporated and modelled using the best available life cycle inventory data.

Environmental indicators

Indicator	Description
Climate change Total (GWP-total) Fossil (GWP-fossil) Biogenic (GWP-biogenic) Land use and Land use change (GWP-luluc)	A measure of greenhouse gas emissions, such as CO ₂ and methane. These emissions are causing an increase in the absorption of radiation emitted by the earth, increasing the natural greenhouse effect. This may in turn have adverse impacts on ecosystem health, human health and material welfare
Ozone Depletion (ODP)	A measure of air emissions that contribute to the depletion of the stratospheric ozone layer. Depletion of the ozone leads to higher levels of UVB ultraviolet rays reaching the earth's surface with detrimental effects on humans and plants
Acidification Potential (AP)	The potential of emissions to cause acidifying effects in the environment, typically due to acid rain. Potential downstream effects include fish mortality, forest decline and the deterioration of building materials.
Eutrophication Freshwater (EP-fw) Aquatic marine (EP-fm) Terrestrial (EP-tr)	Eutrophication covers all potential impacts of excessively high levels of macronutrients, the most important of which nitrogen (N) and phosphorus (P). Nutrient enrichment may cause an undesirable shift in species composition and elevated biomass production in both aquatic and terrestrial ecosystems. In aquatic ecosystems increased biomass production may lead to depressed oxygen levels, because of the additional consumption of oxygen in biomass decomposition.
Photochemical Ozone Creation Potential (POCP)	A measure of emissions of precursors that contribute to ground-level smog formation (mainly ozone, O ₃). Ground-level ozone can be harmful to human and ecosystem health and can also damage crops.
Depletion of abiotic resources – minerals and metals (ADP-mm)	The consumption of non-renewable resources leads to a decrease in the future availability of the functions supplied by these resources. Depletion of mineral resources is assessed based on ultimate reserves
Depletion of abiotic resources (ADP-fossil)	The consumption of non-renewable resources leads to a decrease in the future availability of the functions supplied by these resources.
Water use (WDP)	Water (user) deprivation potential, deprivation-weighted water consumption (WDP)

Purex Toilet Roll (Standard)-4

Article number(s): 2264599

1,000 kg air-dry tissue + 69 kg paper packaging + 65 kg plastic packaging = 1,134 kg total.

Content declaration: Paper >99% virgin kraft pulp. Bleaching agent: chlorine dioxide (elemental chlorine free).

Potential Environmental Impacts		Manufacture			Transport + Landfill	
Indicator	Unit	Upstream	Core	To Gate	Downstream	Total
Climate change, total	kg CO ₂ -eq.	-3,250	2,820	-431	3,240	2,810
Climate change, fossil	kg CO ₂ -eq.	404	921	1,320	387	1,710
Climate change, biogenic	kg CO ₂ -eq.	-3,660	1,900	-1,760	2,850	1,090
Climate change, land use and land use change	kg CO ₂ -eq.	1.26	4.57	5.82	0.0623	5.89
Ozone depletion	kg CFC11-eq.	4.28E-09	5.16E-10	4.80E-09	6.65E-10	5.47E-09
Acidification	Mole of H ⁺ eq.	1.90	9.27	11.2	1.59	12.8
Eutrophication, freshwater	kg P eq.	0.00917	0.0471	0.0562	0.00180	0.0580
Eutrophication, marine	kg N eq.	0.694	2.80	3.49	1.29	4.78
Eutrophication, terrestrial	Mole of N eq.	7.26	30.7	37.9	6.10	44.0
Photochemical ozone formation, human health	kg NMVOC eq.	1.95	7.57	9.52	1.80	11.3
Resource use, mineral and metals	kg Sb-eq.	1.14E-04	5.85E-05	1.73E-04	5.66E-05	2.29E-04
Resource use, fossils	MJ	7,940	9,990	17,900	4,040	22,000
Water use	m ³ world equiv.	78.5	299	378	820	1,200

Primary Energy Demand (PED)

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Use of renewable primary energy	MJ	43,400	14,300	8,190	8,190	57,800
Primary energy resources used as raw materials	MJ	14.5	0	0	0	14.5
Total use of renewable primary energy resources	MJ	43,400	14,300	8,190	8,190	57,800
Use of non-renewable primary energy	MJ	8,010	10,000	4,040	4,040	18,000
Non-renewable primary energy resources used as raw materials	MJ	2.64	0	0	0	2.64
Total use of non-renewable primary energy resources	MJ	8,010	10,000	4,040	4,040	18,000
Input of secondary material	kg	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	0	0	0	0
Use of non renewable secondary fuels	MJ	0	0	0	0	0
Use of net fresh water	m ³	9.24	29.2	77.5	77.5	38.5
Total use of non-renewable & renewable primary energy resources	MJ	51,500	24,300	75,800	12,200	88,000
% Total use of renewable primary energy resources	MJ	84.4%	58.9%	76.2%	67.0%	74.9%

Waste indicators

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Hazardous waste disposed	kg	1.57E-05	1.32E-06	3.72E-07	3.72E-07	1.70E-05
Non-hazardous waste disposed	kg	10.5	37.3	167	167	47.8
Radioactive waste disposed	kg	0.176	0.0451	0.0788	0.0788	0.221
Components for re-use	kg	0	0	0	0	0
Materials for recycling	kg	0	0	0	0	0
Material for energy recovery	kg	0	0	0	0	0
Exported electrical energy	MJ	0	0	0	0	0
Exported thermal energy	MJ	0	0	0	0	0

Purex Toilet Roll (Standard)-12

Article number(s): 2294521

1,000 kg air-dry tissue + 69 kg paper packaging + 36 kg plastic packaging = 1,105 kg total.

Content declaration: Paper >99% virgin kraft pulp. Bleaching agent: chlorine dioxide (elemental chlorine free).

Potential Environmental Impacts		Manufacture			Transport + Landfill	
Indicator	Unit	Upstream	Core	To Gate	Downstream	Total
Climate change, total	kg CO ₂ -eq.	-3,310	2,820	-492	3,240	2,750
Climate change, fossil	kg CO ₂ -eq.	344	920	1,260	390	1,650
Climate change, biogenic	kg CO ₂ -eq.	-3,660	1,900	-1,760	2,850	1,090
Climate change, land use and land use change	kg CO ₂ -eq.	1.25	4.56	5.81	0.0623	5.87
Ozone depletion	kg CFC11-eq.	4.20E-09	5.16E-10	4.72E-09	6.65E-10	5.38E-09
Acidification	Mole of H ⁺ eq.	1.79	9.26	11.1	1.80	12.9
Eutrophication, freshwater	kg P eq.	0.00910	0.0470	0.0561	0.00180	0.0579
Eutrophication, marine	kg N eq.	0.655	2.79	3.45	1.34	4.79
Eutrophication, terrestrial	Mole of N eq.	6.82	30.6	37.5	6.67	44.1
Photochemical ozone formation, human health	kg NMVOC eq.	1.83	7.56	9.40	1.95	11.3
Resource use, mineral and metals	kg Sb-eq.	7.80E-05	5.85E-05	1.36E-04	5.66E-05	1.93E-04
Resource use, fossils	MJ	6,270	9,980	16,300	4,090	20,300
Water use	m ³ world equiv.	66.4	299	366	821	1,190

Primary Energy Demand (PED)

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Use of renewable primary energy	MJ	43,300	14,300	8,190	8,190	57,700
Primary energy resources used as raw materials	MJ	14.8	0	0	0	14.8
Total use of renewable primary energy resources	MJ	43,300	14,300	8,190	8,190	57,700
Use of non-renewable primary energy	MJ	6,310	9,990	4,090	4,090	16,300
Non-renewable primary energy resources used as raw materials	MJ	1.66	0	0	0	1.66
Total use of non-renewable primary energy resources	MJ	6,310	9,990	4,090	4,090	16,300
Input of secondary material	kg	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	0	0	0	0
Use of non renewable secondary fuels	MJ	0	0	0	0	0
Use of net fresh water	m ³	8.90	29.2	77.5	77.5	38.1
Total use of non-renewable & renewable primary energy resources	MJ	49,700	24,300	74,000	12,300	86,300
% Total use of renewable primary energy resources	MJ	87.3%	58.9%	78.0%	66.7%	76.4%

Waste indicators

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Hazardous waste disposed	kg	1.56E-05	1.32E-06	3.72E-07	3.72E-07	1.69E-05
Non-hazardous waste disposed	kg	7.64	37.3	167	167	45.0
Radioactive waste disposed	kg	0.152	0.0450	0.0788	0.0788	0.197
Components for re-use	kg	0	0	0	0	0
Materials for recycling	kg	0	0	0	0	0
Material for energy recovery	kg	0	0	0	0	0
Exported electrical energy	MJ	0	0	0	0	0
Exported thermal energy	MJ	0	0	0	0	0

Purex Toilet Roll (Standard)-24

Article number(s): 2304297

1,000 kg air-dry tissue + 80 kg paper packaging + 35 kg plastic packaging = 1,115 kg total.

Content declaration: Paper >99% virgin kraft pulp. Bleaching agent: chlorine dioxide (elemental chlorine free).

Potential Environmental Impacts		Manufacture			Transport + Landfill	
Indicator	Unit	Upstream	Core	To Gate	Downstream	Total
Climate change, total	kg CO ₂ -eq.	-3,320	2,820	-504	3,250	2,740
Climate change, fossil	kg CO ₂ -eq.	351	921	1,270	380	1,650
Climate change, biogenic	kg CO ₂ -eq.	-3,680	1,890	-1,780	2,870	1,090
Climate change, land use and land use change	kg CO ₂ -eq.	1.26	4.56	5.82	0.0622	5.88
Ozone depletion	kg CFC11-eq.	4.35E-09	5.16E-10	4.86E-09	6.64E-10	5.53E-09
Acidification	Mole of H ⁺ eq.	1.83	9.28	11.1	1.46	12.6
Eutrophication, freshwater	kg P eq.	0.00935	0.0470	0.0564	0.00180	0.0582
Eutrophication, marine	kg N eq.	0.672	2.80	3.47	1.25	4.72
Eutrophication, terrestrial	Mole of N eq.	7.00	30.7	37.7	5.67	43.4
Photochemical ozone formation, human health	kg NMVOC eq.	1.89	7.58	9.46	1.70	11.2
Resource use, mineral and metals	kg Sb-eq.	7.80E-05	5.85E-05	1.36E-04	5.65E-05	1.93E-04
Resource use, fossils	MJ	6,340	9,990	16,300	3,960	20,300
Water use	m ³ world equiv.	67.0	299	366	820	1,190

Primary Energy Demand (PED)

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Use of renewable primary energy	MJ	43,800	14,300	8,190	8,190	58,100
Primary energy resources used as raw materials	MJ	14.8	0	0	0	14.8
Total use of renewable primary energy resources	MJ	43,800	14,300	8,190	8,190	58,100
Use of non-renewable primary energy	MJ	6,380	10,000	3,960	3,960	16,400
Non-renewable primary energy resources used as raw materials	MJ	1.58	0	0	0	1.58
Total use of non-renewable primary energy resources	MJ	6,380	10,000	3,960	3,960	16,400
Input of secondary material	kg	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	0	0	0	0
Use of non renewable secondary fuels	MJ	0	0	0	0	0
Use of net fresh water	m ³	8.99	29.2	77.5	77.5	38.2
Total use of non-renewable & renewable primary energy resources	MJ	50,200	24,300	74,500	12,200	86,700
% Total use of renewable primary energy resources	MJ	87.3%	58.9%	78.0%	67.4%	76.5%

Waste indicators

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Hazardous waste disposed	kg	1.79E-05	1.32E-06	3.72E-07	3.72E-07	1.92E-05
Non-hazardous waste disposed	kg	7.96	37.3	167	167	45.3
Radioactive waste disposed	kg	0.154	0.0450	0.0788	0.0788	0.199
Components for re-use	kg	0	0	0	0	0
Materials for recycling	kg	0	0	0	0	0
Material for energy recovery	kg	0	0	0	0	0
Exported electrical energy	MJ	0	0	0	0	0
Exported thermal energy	MJ	0	0	0	0	0

Purex Mega Toilet Roll-4

Article number(s): 2302644

1,000 kg air-dry tissue + 32 kg paper packaging + 28 kg plastic packaging = 1,060 kg total.

Content declaration: Paper >99% virgin kraft pulp. Bleaching agent: chlorine dioxide (elemental chlorine free).

Potential Environmental Impacts		Manufacture			Transport + Landfill	
Indicator	Unit	Upstream	Core	To Gate	Downstream	Total
Climate change, total	kg CO ₂ -eq.	-3,300	2,820	-480	3,180	2,700
Climate change, fossil	kg CO ₂ -eq.	300	918	1,220	374	1,590
Climate change, biogenic	kg CO ₂ -eq.	-3,600	1,900	-1,700	2,810	1,100
Climate change, land use and land use change	kg CO ₂ -eq.	1.21	4.57	5.77	0.0622	5.84
Ozone depletion	kg CFC11-eq.	3.68E-09	5.16E-10	4.20E-09	6.64E-10	4.86E-09
Acidification	Mole of H ⁺ eq.	1.59	9.23	10.8	1.49	12.3
Eutrophication, freshwater	kg P eq.	0.00823	0.0471	0.0553	0.00180	0.0571
Eutrophication, marine	kg N eq.	0.579	2.78	3.36	1.24	4.60
Eutrophication, terrestrial	Mole of N eq.	6.04	30.5	36.5	5.62	42.1
Photochemical ozone formation, human health	kg NMVOC eq.	1.61	7.53	9.14	1.72	10.9
Resource use, mineral and metals	kg Sb-eq.	6.20E-05	5.85E-05	1.20E-04	5.63E-05	1.77E-04
Resource use, fossils	MJ	5,360	9,960	15,300	3,870	19,200
Water use	m ³ world equiv.	59.1	299	359	820	1,180

Primary Energy Demand (PED)

Indicator	Unit
Use of renewable primary energy	MJ
Primary energy resources used as raw materials	MJ
Total use of renewable primary energy resources	MJ
Use of non-renewable primary energy	MJ
Non-renewable primary energy resources used as raw materials	MJ
Total use of non-renewable primary energy resources	MJ
Input of secondary material	kg
Use of renewable secondary fuels	MJ
Use of non renewable secondary fuels	MJ
Use of net fresh water	m ³
Total use of non-renewable & renewable primary energy resources	MJ
% Total use of renewable primary energy resources	MJ

Manufacture

Upstream	Core	To Gate
41,700	14,300	8,190
15.0	0	0
41,700	14,300	8,190
5,400	9,960	3,870
1.31	0	0
5,400	9,960	3,870
0	0	0
0	0	0
0	0	0
8.51	29.2	77.5
47,100	24,300	71,400
88.5%	59.0%	78.5%

Transport + Landfill

Downstream	Total
8,190	56,000
0	15.0
8,190	56,000
3,870	15,400
0	1.31
3,870	15,400
0	0
0	0
0	0
77.5	37.7
12,100	83,400
67.9%	76.9%

Waste indicators

Indicator	Unit
Hazardous waste disposed	kg
Non-hazardous waste disposed	kg
Radioactive waste disposed	kg
Components for re-use	kg
Materials for recycling	kg
Material for energy recovery	kg
Exported electrical energy	MJ
Exported thermal energy	MJ

Manufacture

Upstream	Core	To Gate
7.68E-06	1.32E-06	3.72E-07
5.31	37.3	167
0.134	0.0451	0.0788
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0

Transport + Landfill

Downstream	Total
3.72E-07	9.00E-06
167	42.6
0.0788	0.179
0	0
0	0
0	0
0	0
0	0

Purex Mega Toilet Roll-6

Article number(s): 2309198

1,000 kg air-dry tissue + 31 kg paper packaging + 37 kg plastic packaging = 1,069 kg total.

Content declaration: Paper >99% virgin kraft pulp. Bleaching agent: chlorine dioxide (elemental chlorine free).

Potential Environmental Impacts		Manufacture			Transport + Landfill	
Indicator	Unit	Upstream	Core	To Gate	Downstream	Total
Climate change, total	kg CO ₂ -eq.	-3,280	2,820	-456	3,180	2,720
Climate change, fossil	kg CO ₂ -eq.	320	918	1,240	369	1,610
Climate change, biogenic	kg CO ₂ -eq.	-3,600	1,900	-1,700	2,810	1,110
Climate change, land use and land use change	kg CO ₂ -eq.	1.21	4.57	5.77	0.0621	5.84
Ozone depletion	kg CFC11-eq.	3.69E-09	5.16E-10	4.21E-09	6.63E-10	4.87E-09
Acidification	Mole of H ⁺ eq.	1.62	9.23	10.9	1.35	12.2
Eutrophication, freshwater	kg P eq.	0.00822	0.0471	0.0553	0.00180	0.0571
Eutrophication, marine	kg N eq.	0.590	2.78	3.37	1.20	4.57
Eutrophication, terrestrial	Mole of N eq.	6.16	30.5	36.6	5.20	41.8
Photochemical ozone formation, human health	kg NMVOC eq.	1.64	7.53	9.17	1.61	10.8
Resource use, mineral and metals	kg Sb-eq.	7.40E-05	5.84E-05	1.32E-04	5.63E-05	1.89E-04
Resource use, fossils	MJ	5,930	9,960	15,900	3,800	19,700
Water use	m ³ world equiv.	62.9	299	362	820	1,180

Primary Energy Demand (PED)

Indicator	Unit
Use of renewable primary energy	MJ
Primary energy resources used as raw materials	MJ
Total use of renewable primary energy resources	MJ
Use of non-renewable primary energy	MJ
Non-renewable primary energy resources used as raw materials	MJ
Total use of non-renewable primary energy resources	MJ
Input of secondary material	kg
Use of renewable secondary fuels	MJ
Use of non renewable secondary fuels	MJ
Use of net fresh water	m ³
Total use of non-renewable & renewable primary energy resources	MJ
% Total use of renewable primary energy resources	MJ

Manufacture

Upstream	Core	To Gate
41,600	14,300	8,190
14.8	0	0
41,600	14,300	8,190
5,970	9,960	3,810
1.69	0	0
5,970	9,960	3,810
0	0	0
0	0	0
0	0	0
8.62	29.2	77.5
47,600	24,300	71,900
87.4%	59.0%	77.8%

Transport + Landfill

Downstream	Total
8,190	55,900
0	14.8
8,190	55,900
3,810	15,900
0	1.69
3,810	15,900
0	0
0	0
0	0
77.5	37.9
12,000	83,900
68.3%	76.5%

Waste indicators

Indicator	Unit
Hazardous waste disposed	kg
Non-hazardous waste disposed	kg
Radioactive waste disposed	kg
Components for re-use	kg
Materials for recycling	kg
Material for energy recovery	kg
Exported electrical energy	MJ
Exported thermal energy	MJ

Manufacture

Upstream	Core	To Gate
7.42E-06	1.32E-06	3.72E-07
6.21	37.3	167
0.142	0.0451	0.0788
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0

Transport + Landfill

Downstream	Total
3.72E-07	8.74E-06
167	43.6
0.0788	0.187
0	0
0	0
0	0
0	0
0	0

Purex Mega Toilet Roll-12

Article number(s): 2320367

1,000 kg air-dry tissue + 31 kg paper packaging + 27 kg plastic packaging = 1,058 kg total.

Content declaration: Paper >99% virgin kraft pulp. Bleaching agent: chlorine dioxide (elemental chlorine free).

Potential Environmental Impacts		Manufacture			Transport + Landfill	
Indicator	Unit	Upstream	Core	To Gate	Downstream	Total
Climate change, total	kg CO ₂ -eq.	-3,300	2,820	-479	3,170	2,690
Climate change, fossil	kg CO ₂ -eq.	298	918	1,220	366	1,580
Climate change, biogenic	kg CO ₂ -eq.	-3,600	1,900	-1,700	2,810	1,110
Climate change, land use and land use change	kg CO ₂ -eq.	1.20	4.57	5.77	0.0621	5.83
Ozone depletion	kg CFC11-eq.	3.66E-09	5.16E-10	4.18E-09	6.63E-10	4.84E-09
Acidification	Mole of H ⁺ eq.	1.58	9.23	10.8	1.17	12.0
Eutrophication, freshwater	kg P eq.	0.00820	0.0471	0.0553	0.00180	0.0571
Eutrophication, marine	kg N eq.	0.576	2.78	3.35	1.16	4.52
Eutrophication, terrestrial	Mole of N eq.	6.01	30.5	36.5	4.73	41.2
Photochemical ozone formation, human health	kg NMVOC eq.	1.60	7.53	9.13	1.49	10.6
Resource use, mineral and metals	kg Sb-eq.	6.10E-05	5.84E-05	1.19E-04	5.63E-05	1.76E-04
Resource use, fossils	MJ	5,320	9,950	15,300	3,780	19,100
Water use	m ³ world equiv.	58.7	299	358	820	1,180

Primary Energy Demand (PED)

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Use of renewable primary energy	MJ	41,600	14,300	8,190	8,190	55,900
Primary energy resources used as raw materials	MJ	15.0	0	0	0	15.0
Total use of renewable primary energy resources	MJ	41,600	14,300	8,190	8,190	55,900
Use of non-renewable primary energy	MJ	5,350	9,960	3,780	3,780	15,300
Non-renewable primary energy resources used as raw materials	MJ	1.29	0	0	0	1.29
Total use of non-renewable primary energy resources	MJ	5,350	9,960	3,780	3,780	15,300
Input of secondary material	kg	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	0	0	0	0
Use of non renewable secondary fuels	MJ	0	0	0	0	0
Use of net fresh water	m ³	8.50	29.2	77.5	77.5	37.7
Total use of non-renewable & renewable primary energy resources	MJ	47,000	24,300	71,200	12,000	83,200
% Total use of renewable primary energy resources	MJ	88.6%	59.0%	78.5%	68.4%	77.1%

Waste indicators

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Hazardous waste disposed	kg	7.39E-06	1.32E-06	3.72E-07	3.72E-07	8.71E-06
Non-hazardous waste disposed	kg	5.19	37.3	167	167	42.5
Radioactive waste disposed	kg	0.133	0.0451	0.0788	0.0788	0.178
Components for re-use	kg	0	0	0	0	0
Materials for recycling	kg	0	0	0	0	0
Material for energy recovery	kg	0	0	0	0	0
Exported electrical energy	MJ	0	0	0	0	0
Exported thermal energy	MJ	0	0	0	0	0

Sorbent Toilet Long Roll-8

Article number(s): 2314220

1,000 kg air-dry tissue + 49 kg paper packaging + 27 kg plastic packaging = 1,076 kg total.

Content declaration: Paper >99% virgin kraft pulp. Bleaching agent: chlorine dioxide (elemental chlorine free).

Potential Environmental Impacts		Manufacture			Transport + Landfill	
Indicator	Unit	Upstream	Core	To Gate	Downstream	Total
Climate change, total	kg CO ₂ -eq.	-3,340	2,830	-509	3,200	2,690
Climate change, fossil	kg CO ₂ -eq.	300	913	1,210	372	1,590
Climate change, biogenic	kg CO ₂ -eq.	-3,640	1,910	-1,730	2,830	1,100
Climate change, land use and land use change	kg CO ₂ -eq.	1.23	4.60	5.83	0.0621	5.89
Ozone depletion	kg CFC11-eq.	3.90E-09	5.29E-10	4.43E-09	6.64E-10	5.10E-09
Acidification	Mole of H ⁺ eq.	1.65	9.24	10.9	1.49	12.4
Eutrophication, freshwater	kg P eq.	0.00863	0.0473	0.0560	0.00180	0.0578
Eutrophication, marine	kg N eq.	0.607	2.79	3.40	1.24	4.64
Eutrophication, terrestrial	Mole of N eq.	6.32	30.4	36.8	5.58	42.4
Photochemical ozone formation, human health	kg NMVOC eq.	1.68	7.57	9.24	1.71	11.0
Resource use, mineral and metals	kg Sb-eq.	6.23E-05	5.97E-05	1.22E-04	5.63E-05	1.78E-04
Resource use, fossils	MJ	5,210	9,990	15,200	3,840	19,000
Water use	m ³ world equiv.	60.7	310	371	820	1,190

Primary Energy Demand (PED)

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Use of renewable primary energy	MJ	42,700	13,800	8,190	8,190	56,500
Primary energy resources used as raw materials	MJ	15.0	0	0	0	15.0
Total use of renewable primary energy resources	MJ	42,700	13,800	8,190	8,190	56,500
Use of non-renewable primary energy	MJ	5,240	10,000	3,840	3,840	15,200
Non-renewable primary energy resources used as raw materials	MJ	1.16	0	0	0	1.16
Total use of non-renewable primary energy resources	MJ	5,240	10,000	3,840	3,840	15,200
Input of secondary material	kg	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	0	0	0	0
Use of non renewable secondary fuels	MJ	0	0	0	0	0
Use of net fresh water	m ³	8.53	30.1	77.5	77.5	38.7
Total use of non-renewable & renewable primary energy resources	MJ	47,900	23,800	71,700	12,000	83,800
% Total use of renewable primary energy resources	MJ	89.1%	58.0%	78.7%	68.1%	77.2%

Waste indicators

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Hazardous waste disposed	kg	1.13E-05	1.33E-06	3.72E-07	3.72E-07	1.26E-05
Non-hazardous waste disposed	kg	5.80	37.5	167	167	43.3
Radioactive waste disposed	kg	0.138	0.0454	0.0788	0.0788	0.183
Components for re-use	kg	0	0	0	0	0
Materials for recycling	kg	0	0	0	0	0
Material for energy recovery	kg	0	0	0	0	0
Exported electrical energy	MJ	0	0	0	0	0
Exported thermal energy	MJ	0	0	0	0	0

Sorbent Toilet Long Roll-4

Article number(s): 2314219

1,000 kg air-dry tissue + 37 kg paper packaging + 37 kg plastic packaging = 1,074 kg total.

Content declaration: Paper >99% virgin kraft pulp. Bleaching agent: chlorine dioxide (elemental chlorine free).

Potential Environmental Impacts		Manufacture			Transport + Landfill	
Indicator	Unit	Upstream	Core	To Gate	Downstream	Total
Climate change, total	kg CO ₂ -eq.	-3,300	2,830	-473	3,190	2,720
Climate change, fossil	kg CO ₂ -eq.	313	913	1,230	376	1,600
Climate change, biogenic	kg CO ₂ -eq.	-3,610	1,910	-1,700	2,810	1,110
Climate change, land use and land use change	kg CO ₂ -eq.	1.22	4.60	5.82	0.0622	5.88
Ozone depletion	kg CFC11-eq.	3.76E-09	5.29E-10	4.29E-09	6.64E-10	4.96E-09
Acidification	Mole of H ⁺ eq.	1.64	9.23	10.9	1.62	12.5
Eutrophication, freshwater	kg P eq.	0.00837	0.0474	0.0557	0.00180	0.0575
Eutrophication, marine	kg N eq.	0.598	2.79	3.39	1.28	4.66
Eutrophication, terrestrial	Mole of N eq.	6.24	30.4	36.7	5.96	42.6
Photochemical ozone formation, human health	kg NMVOC eq.	1.65	7.56	9.21	1.81	11.0
Resource use, mineral and metals	kg Sb-eq.	7.28E-05	5.97E-05	1.32E-04	5.64E-05	1.89E-04
Resource use, fossils	MJ	5,660	9,990	15,600	3,900	19,500
Water use	m ³ world equiv.	63.5	310	373	820	1,190

Primary Energy Demand (PED)

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Use of renewable primary energy	MJ	42,100	13,800	8,190	8,190	55,900
Primary energy resources used as raw materials	MJ	14.9	0	0	0	14.9
Total use of renewable primary energy resources	MJ	42,100	13,800	8,190	8,190	55,900
Use of non-renewable primary energy	MJ	5,700	10,000	3,900	3,900	15,700
Non-renewable primary energy resources used as raw materials	MJ	1.44	0	0	0	1.44
Total use of non-renewable primary energy resources	MJ	5,700	10,000	3,900	3,900	15,700
Input of secondary material	kg	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	0	0	0	0
Use of non renewable secondary fuels	MJ	0	0	0	0	0
Use of net fresh water	m ³	8.56	30.1	77.5	77.5	38.7
Total use of non-renewable & renewable primary energy resources	MJ	47,900	23,800	71,600	12,100	83,700
% Total use of renewable primary energy resources	MJ	88.1%	58.0%	78.1%	67.7%	76.6%

Waste indicators

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Hazardous waste disposed	kg	8.64E-06	1.33E-06	3.72E-07	3.72E-07	9.96E-06
Non-hazardous waste disposed	kg	6.25	37.5	167	167	43.8
Radioactive waste disposed	kg	0.142	0.0454	0.0788	0.0788	0.188
Components for re-use	kg	0	0	0	0	0
Materials for recycling	kg	0	0	0	0	0
Material for energy recovery	kg	0	0	0	0	0
Exported electrical energy	MJ	0	0	0	0	0
Exported thermal energy	MJ	0	0	0	0	0

Sorbent Thick & Large Roll-8

Article number(s): 2325518

1,000 kg air-dry tissue + 48 kg paper packaging + 31 kg plastic packaging = 1,078 kg total.

Content declaration: Paper >99% virgin kraft pulp. Bleaching agent: chlorine dioxide (elemental chlorine free).

Potential Environmental Impacts		Manufacture			Transport + Landfill	
Indicator	Unit	Upstream	Core	To Gate	Downstream	Total
Climate change, total	kg CO ₂ -eq.	-3,330	2,830	-502	3,200	2,690
Climate change, fossil	kg CO ₂ -eq.	306	914	1,220	369	1,590
Climate change, biogenic	kg CO ₂ -eq.	-3,640	1,910	-1,730	2,830	1,100
Climate change, land use and land use change	kg CO ₂ -eq.	1.23	4.60	5.83	0.0621	5.89
Ozone depletion	kg CFC11-eq.	3.90E-09	5.29E-10	4.43E-09	6.63E-10	5.09E-09
Acidification	Mole of H ⁺ eq.	1.66	9.24	10.9	1.27	12.2
Eutrophication, freshwater	kg P eq.	0.00862	0.0474	0.0560	0.00180	0.0578
Eutrophication, marine	kg N eq.	0.609	2.79	3.40	1.19	4.59
Eutrophication, terrestrial	Mole of N eq.	6.35	30.4	36.8	5.01	41.8
Photochemical ozone formation, human health	kg NMVOC eq.	1.68	7.57	9.25	1.56	10.8
Resource use, mineral and metals	kg Sb-eq.	6.63E-05	5.97E-05	1.26E-04	5.63E-05	1.82E-04
Resource use, fossils	MJ	5,360	9,990	15,400	3,810	19,200
Water use	m ³ world equiv.	62.1	310	372	820	1,190

Primary Energy Demand (PED)

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Use of renewable primary energy	MJ	42,700	13,800	8,190	8,190	56,400
Primary energy resources used as raw materials	MJ	15.0	0	0	0	15.0
Total use of renewable primary energy resources	MJ	42,700	13,800	8,190	8,190	56,400
Use of non-renewable primary energy	MJ	5,400	10,000	3,810	3,810	15,400
Non-renewable primary energy resources used as raw materials	MJ	1.26	0	0	0	1.26
Total use of non-renewable primary energy resources	MJ	5,400	10,000	3,810	3,810	15,400
Input of secondary material	kg	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	0	0	0	0
Use of non renewable secondary fuels	MJ	0	0	0	0	0
Use of net fresh water	m ³	8.55	30.1	77.5	77.5	38.7
Total use of non-renewable & renewable primary energy resources	MJ	48,100	23,800	71,900	12,000	83,900
% Total use of renewable primary energy resources	MJ	88.8%	58.0%	78.6%	68.2%	77.1%

Waste indicators

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Hazardous waste disposed	kg	1.11E-05	1.33E-06	3.72E-07	3.72E-07	1.24E-05
Non-hazardous waste disposed	kg	6.08	37.5	167	167	43.6
Radioactive waste disposed	kg	0.140	0.0454	0.0788	0.0788	0.186
Components for re-use	kg	0	0	0	0	0
Materials for recycling	kg	0	0	0	0	0
Material for energy recovery	kg	0	0	0	0	0
Exported electrical energy	MJ	0	0	0	0	0
Exported thermal energy	MJ	0	0	0	0	0

Sorbent Toilet Long Roll (Hypo-allergenic)-12

Article number(s): 2314217

1,000 kg air-dry tissue + 40 kg paper packaging + 40 kg plastic packaging = 1,080 kg total.

Content declaration: Paper >99% virgin kraft pulp. Bleaching agent: chlorine dioxide (elemental chlorine free).

Potential Environmental Impacts		Manufacture			Transport + Landfill	
Indicator	Unit	Upstream	Core	To Gate	Downstream	Total
Climate change, total	kg CO ₂ -eq.	-3,320	2,840	-484	3,200	2,720
Climate change, fossil	kg CO ₂ -eq.	314	914	1,230	384	1,610
Climate change, biogenic	kg CO ₂ -eq.	-3,640	1,920	-1,720	2,820	1,100
Climate change, land use and land use change	kg CO ₂ -eq.	1.23	4.62	5.85	0.0622	5.91
Ozone depletion	kg CFC11-eq.	3.80E-09	5.29E-10	4.33E-09	6.65E-10	4.99E-09
Acidification	Mole of H ⁺ eq.	1.66	9.27	10.9	1.78	12.7
Eutrophication, freshwater	kg P eq.	0.00845	0.0475	0.0560	0.00180	0.0578
Eutrophication, marine	kg N eq.	0.605	2.79	3.40	1.32	4.72
Eutrophication, terrestrial	Mole of N eq.	6.32	30.5	36.8	6.51	43.3
Photochemical ozone formation, human health	kg NMVOC eq.	1.67	7.57	9.23	1.93	11.2
Resource use, mineral and metals	kg Sb-eq.	7.54E-05	5.97E-05	1.35E-04	5.65E-05	1.92E-04
Resource use, fossils	MJ	5,660	9,950	15,600	4,000	19,600
Water use	m ³ world equiv.	64.9	309	374	820	1,190

Primary Energy Demand (PED)

Indicator	Unit
Use of renewable primary energy	MJ
Primary energy resources used as raw materials	MJ
Total use of renewable primary energy resources	MJ
Use of non-renewable primary energy	MJ
Non-renewable primary energy resources used as raw materials	MJ
Total use of non-renewable primary energy resources	MJ
Input of secondary material	kg
Use of renewable secondary fuels	MJ
Use of non renewable secondary fuels	MJ
Use of net fresh water	m ³
Total use of non-renewable & renewable primary energy resources	MJ
% Total use of renewable primary energy resources	MJ

Manufacture

Upstream	Core	To Gate
42,400	14,100	8,190
15.0	0	0
42,400	14,100	8,190
5,710	9,960	4,010
1.43	0	0
5,710	9,960	4,010
0	0	0
0	0	0
0	0	0
8.56	30.1	77.5
48,200	24,100	72,200
88.1%	58.6%	78.3%

Transport + Landfill

Downstream	Total
8,190	56,600
0	15.0
8,190	56,600
4,010	15,700
0	1.43
4,010	15,700
0	0
0	0
0	0
77.5	38.6
12,200	84,400
67.2%	76.7%

Waste indicators

Indicator	Unit
Hazardous waste disposed	kg
Non-hazardous waste disposed	kg
Radioactive waste disposed	kg
Components for re-use	kg
Materials for recycling	kg
Material for energy recovery	kg
Exported electrical energy	MJ
Exported thermal energy	MJ

Manufacture

Upstream	Core	To Gate
9.15E-06	1.33E-06	3.72E-07
6.53	37.6	167
0.145	0.0456	0.0788
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0

Transport + Landfill

Downstream	Total
3.72E-07	1.05E-05
167	44.1
0.0788	0.190
0	0
0	0
0	0
0	0
0	0

Sorbent Toilet Long Roll (Hypo-allergenic)-8

Article number(s): 2327254

1,000 kg air-dry tissue + 49 kg paper packaging + 29 kg plastic packaging = 1,078 kg total.

Content declaration: Paper >99% virgin kraft pulp. Bleaching agent: chlorine dioxide (elemental chlorine free).

Potential Environmental Impacts		Manufacture			Transport + Landfill	
Indicator	Unit	Upstream	Core	To Gate	Downstream	Total
Climate change, total	kg CO ₂ -eq.	-3,360	2,840	-520	3,210	2,690
Climate change, fossil	kg CO ₂ -eq.	292	913	1,210	384	1,590
Climate change, biogenic	kg CO ₂ -eq.	-3,650	1,920	-1,730	2,830	1,090
Climate change, land use and land use change	kg CO ₂ -eq.	1.24	4.62	5.86	0.0622	5.92
Ozone depletion	kg CFC11-eq.	3.90E-09	5.29E-10	4.43E-09	6.64E-10	5.09E-09
Acidification	Mole of H ⁺ eq.	1.65	9.27	10.9	1.78	12.7
Eutrophication, freshwater	kg P eq.	0.00865	0.0475	0.0562	0.00180	0.0580
Eutrophication, marine	kg N eq.	0.606	2.79	3.40	1.32	4.72
Eutrophication, terrestrial	Mole of N eq.	6.31	30.5	36.8	6.50	43.3
Photochemical ozone formation, human health	kg NMVOC eq.	1.66	7.57	9.24	1.93	11.2
Resource use, mineral and metals	kg Sb-eq.	6.10E-05	5.96E-05	1.21E-04	5.64E-05	1.77E-04
Resource use, fossils	MJ	4,970	9,950	14,900	4,000	18,900
Water use	m ³ world equiv.	60.9	309	370	819	1,190

Primary Energy Demand (PED)

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Use of renewable primary energy	MJ	42,900	14,100	8,180	8,180	57,000
Primary energy resources used as raw materials	MJ	15.1	0	0	0	15.1
Total use of renewable primary energy resources	MJ	42,900	14,100	8,180	8,180	57,000
Use of non-renewable primary energy	MJ	5,000	9,960	4,000	4,000	15,000
Non-renewable primary energy resources used as raw materials	MJ	1.09	0	0	0	1.09
Total use of non-renewable primary energy resources	MJ	5,000	9,960	4,000	4,000	15,000
Input of secondary material	kg	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	0	0	0	0
Use of non renewable secondary fuels	MJ	0	0	0	0	0
Use of net fresh water	m ³	8.45	30.0	77.4	77.4	38.5
Total use of non-renewable & renewable primary energy resources	MJ	47,900	24,100	72,000	12,200	84,200
% Total use of renewable primary energy resources	MJ	89.6%	58.6%	79.2%	67.2%	77.5%

Waste indicators

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Hazardous waste disposed	kg	1.14E-05	1.33E-06	3.72E-07	3.72E-07	1.27E-05
Non-hazardous waste disposed	kg	5.70	37.6	167	167	43.3
Radioactive waste disposed	kg	0.137	0.0456	0.0787	0.0787	0.183
Components for re-use	kg	0	0	0	0	0
Materials for recycling	kg	0	0	0	0	0
Material for energy recovery	kg	0	0	0	0	0
Exported electrical energy	MJ	0	0	0	0	0
Exported thermal energy	MJ	0	0	0	0	0

Sorbent Thick & Large Roll (Hypo-allergenic)-8

Article number(s): 2325392

1,000 kg air-dry tissue + 48 kg paper packaging + 31 kg plastic packaging = 1,078 kg total.

Content declaration: Paper >99% virgin kraft pulp. Bleaching agent: chlorine dioxide (elemental chlorine free).

Potential Environmental Impacts		Manufacture			Transport + Landfill	
Indicator	Unit	Upstream	Core	To Gate	Downstream	Total
Climate change, total	kg CO ₂ -eq.	-3,350	2,840	-508	3,200	2,690
Climate change, fossil	kg CO ₂ -eq.	298	914	1,210	369	1,580
Climate change, biogenic	kg CO ₂ -eq.	-3,640	1,920	-1,730	2,830	1,100
Climate change, land use and land use change	kg CO ₂ -eq.	1.24	4.62	5.86	0.0621	5.92
Ozone depletion	kg CFC11-eq.	3.89E-09	5.29E-10	4.42E-09	6.63E-10	5.08E-09
Acidification	Mole of H ⁺ eq.	1.66	9.28	10.9	1.27	12.2
Eutrophication, freshwater	kg P eq.	0.00863	0.0475	0.0562	0.00180	0.0580
Eutrophication, marine	kg N eq.	0.608	2.79	3.40	1.19	4.59
Eutrophication, terrestrial	Mole of N eq.	6.33	30.5	36.9	5.01	41.9
Photochemical ozone formation, human health	kg NMVOC eq.	1.67	7.57	9.24	1.56	10.8
Resource use, mineral and metals	kg Sb-eq.	6.49E-05	5.97E-05	1.25E-04	5.63E-05	1.81E-04
Resource use, fossils	MJ	5,140	9,950	15,100	3,810	18,900
Water use	m ³ world equiv.	62.0	309	371	820	1,190

Primary Energy Demand (PED)

Indicator	Unit
Use of renewable primary energy	MJ
Primary energy resources used as raw materials	MJ
Total use of renewable primary energy resources	MJ
Use of non-renewable primary energy	MJ
Non-renewable primary energy resources used as raw materials	MJ
Total use of non-renewable primary energy resources	MJ
Input of secondary material	kg
Use of renewable secondary fuels	MJ
Use of non renewable secondary fuels	MJ
Use of net fresh water	m ³
Total use of non-renewable & renewable primary energy resources	MJ
% Total use of renewable primary energy resources	MJ

Manufacture

Upstream	Core	To Gate
42,800	14,100	8,190
15.1	0	0
42,800	14,100	8,190
5,180	9,960	3,810
1.12	0	0
5,180	9,960	3,810
0	0	0
0	0	0
0	0	0
8.48	30.1	77.5
48,000	24,100	72,100
89.2%	58.6%	79.0%

Transport + Landfill

Downstream	Total
8,190	57,000
0	15.1
8,190	57,000
3,810	15,100
0	1.12
3,810	15,100
0	0
0	0
0	0
77.5	38.6
12,000	84,100
68.2%	77.5%

Waste indicators

Indicator	Unit
Hazardous waste disposed	kg
Non-hazardous waste disposed	kg
Radioactive waste disposed	kg
Components for re-use	kg
Materials for recycling	kg
Material for energy recovery	kg
Exported electrical energy	MJ
Exported thermal energy	MJ

Manufacture

Upstream	Core	To Gate
1.11E-05	1.33E-06	3.72E-07
5.96	37.6	167
0.140	0.0456	0.0788
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0

Transport + Landfill

Downstream	Total
3.72E-07	1.24E-05
167	43.6
0.0788	0.185
0	0
0	0
0	0
0	0
0	0

Tork Soft Conventional Toilet Roll T4 Advanced-48

Article number(s): 234

1,000 kg air-dry tissue + 51 kg paper packaging + 45 kg plastic packaging = 1,095 kg total.

Content declaration: Paper >99% virgin kraft pulp. Bleaching agent: chlorine dioxide (elemental chlorine free).

Potential Environmental Impacts		Manufacture			Transport + Landfill	
Indicator	Unit	Upstream	Core	To Gate	Downstream	Total
Climate change, total	kg CO ₂ -eq.	-3,340	2,920	-423	3,570	3,140
Climate change, fossil	kg CO ₂ -eq.	324	978	1,300	1,040	2,340
Climate change, biogenic	kg CO ₂ -eq.	-3,670	1,930	-1,730	2,520	794
Climate change, land use and land use change	kg CO ₂ -eq.	0.0859	4.66	4.74	0.0546	4.80
Ozone depletion	kg CFC11-eq.	3.94E-09	5.66E-10	4.51E-09	3.64E-09	8.15E-09
Acidification	Mole of H ⁺ eq.	1.72	9.51	11.2	7.65	18.9
Eutrophication, freshwater	kg P eq.	0.00617	0.0479	0.0541	0.00171	0.0558
Eutrophication, marine	kg N eq.	0.605	2.86	3.46	2.64	6.10
Eutrophication, terrestrial	Mole of N eq.	6.55	31.5	38.1	20.6	58.7
Photochemical ozone formation, human health	kg NMVOC eq.	1.74	7.75	9.48	5.56	15.0
Resource use, mineral and metals	kg Sb-eq.	8.09E-05	6.43E-05	1.45E-04	9.22E-05	2.37E-04
Resource use, fossils	MJ	5,940	10,600	16,500	11,300	27,800
Water use	m ³ world equiv.	62.9	341	404	3,890	4,300

Primary Energy Demand (PED)

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Use of renewable primary energy	MJ	43,100	16,100	3,350	3,350	59,200
Primary energy resources used as raw materials	MJ	14.9	0	0	0	14.9
Total use of renewable primary energy resources	MJ	43,100	16,100	3,350	3,350	59,200
Use of non-renewable primary energy	MJ	5,990	10,600	11,300	11,300	16,600
Non-renewable primary energy resources used as raw materials	MJ	1.60	0	0	0	1.60
Total use of non-renewable primary energy resources	MJ	5,990	10,600	11,300	11,300	16,600
Input of secondary material	kg	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	0	0	0	0
Use of non renewable secondary fuels	MJ	0	0	0	0	0
Use of net fresh water	m ³	7.97	32.7	64.7	64.7	40.7
Total use of non-renewable & renewable primary energy resources	MJ	49,200	26,700	75,800	14,700	90,500
% Total use of renewable primary energy resources	MJ	87.8%	60.3%	78.1%	22.8%	69.2%

Waste indicators

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Hazardous waste disposed	kg	1.17E-05	1.37E-06	4.33E-07	4.33E-07	1.30E-05
Non-hazardous waste disposed	kg	7.36	38.0	108	108	45.4
Radioactive waste disposed	kg	0.150	0.0460	0.0786	0.0786	0.196
Components for re-use	kg	0	0	0	0	0
Materials for recycling	kg	0	0	0	0	0
Material for energy recovery	kg	0	0	0	0	0
Exported electrical energy	MJ	0	0	0	0	0
Exported thermal energy	MJ	0	0	0	0	0

Tork Extra Soft Conventional Toilet Roll T4 Premium-48

Article number(s): 2170336

1,000 kg air-dry tissue + 85 kg paper packaging + 13 kg plastic packaging = 1,099 kg total.

Content declaration: Paper >99% virgin kraft pulp. Bleaching agent: chlorine dioxide (elemental chlorine free).

Potential Environmental Impacts		Manufacture			Transport + Landfill	
Indicator	Unit	Upstream	Core	To Gate	Downstream	Total
Climate change, total	kg CO ₂ -eq.	-3,420	2,780	-639	3,520	2,890
Climate change, fossil	kg CO ₂ -eq.	287	856	1,140	893	2,040
Climate change, biogenic	kg CO ₂ -eq.	-3,710	1,920	-1,790	2,630	845
Climate change, land use and land use change	kg CO ₂ -eq.	1.27	4.61	5.88	0.0562	5.94
Ozone depletion	kg CFC11-eq.	4.36E-09	4.75E-10	4.84E-09	2.99E-09	7.83E-09
Acidification	Mole of H ⁺ eq.	1.76	9.14	10.9	6.34	17.2
Eutrophication, freshwater	kg P eq.	0.00948	0.0474	0.0569	0.00173	0.0586
Eutrophication, marine	kg N eq.	0.652	2.74	3.40	2.34	5.73
Eutrophication, terrestrial	Mole of N eq.	6.77	29.9	36.7	17.3	54.1
Photochemical ozone formation, human health	kg NMVOC eq.	1.79	7.44	9.23	4.73	14.0
Resource use, mineral and metals	kg Sb-eq.	4.94E-05	5.33E-05	1.03E-04	8.43E-05	1.87E-04
Resource use, fossils	MJ	4,470	9,290	13,800	9,650	23,400
Water use	m ³ world equiv.	59.3	260	320	3,230	3,550

Primary Energy Demand (PED)

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Use of renewable primary energy	MJ	44,600	12,800	4,400	4,400	57,400
Primary energy resources used as raw materials	MJ	15.3	0	0	0	15.3
Total use of renewable primary energy resources	MJ	44,600	12,800	4,400	4,400	57,400
Use of non-renewable primary energy	MJ	4,480	9,290	9,650	9,650	13,800
Non-renewable primary energy resources used as raw materials	MJ	0.496	0	0	0	0.496
Total use of non-renewable primary energy resources	MJ	4,480	9,290	9,650	9,650	13,800
Input of secondary material	kg	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	0	0	0	0
Use of non renewable secondary fuels	MJ	0	0	0	0	0
Use of net fresh water	m ³	8.53	26.1	67.5	67.5	34.6
Total use of non-renewable & renewable primary energy resources	MJ	49,100	22,100	71,200	14,000	85,300
% Total use of renewable primary energy resources	MJ	90.9%	57.9%	80.6%	31.3%	72.5%

Waste indicators

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Hazardous waste disposed	kg	1.94E-05	1.28E-06	4.20E-07	4.20E-07	2.06E-05
Non-hazardous waste disposed	kg	5.86	37.3	121	121	43.1
Radioactive waste disposed	kg	0.137	0.0454	0.0786	0.0786	0.182
Components for re-use	kg	0	0	0	0	0
Materials for recycling	kg	0	0	0	0	0
Material for energy recovery	kg	0	0	0	0	0
Exported electrical energy	MJ	0	0	0	0	0
Exported thermal energy	MJ	0	0	0	0	0

Tork Soft Jumbo Toilet Roll T1 Advanced-6

Article number(s): 2179144

1,000 kg air-dry tissue + 63 kg paper packaging + 21 kg plastic packaging = 1,085 kg total.

Content declaration: Paper >99% virgin kraft pulp. Bleaching agent: chlorine dioxide (elemental chlorine free).

Potential Environmental Impacts		Manufacture			Transport + Landfill	
Indicator	Unit	Upstream	Core	To Gate	Downstream	Total
Climate change, total	kg CO ₂ -eq.	-3,610	3,130	-483	3,420	2,940
Climate change, fossil	kg CO ₂ -eq.	277	988	1,260	789	2,050
Climate change, biogenic	kg CO ₂ -eq.	-3,890	2,140	-1,750	2,630	881
Climate change, land use and land use change	kg CO ₂ -eq.	0.0987	3.21	3.31	0.0565	3.37
Ozone depletion	kg CFC11-eq.	4.69E-09	5.11E-10	5.20E-09	2.72E-09	7.93E-09
Acidification	Mole of H ⁺ eq.	1.76	9.00	10.8	4.37	15.1
Eutrophication, freshwater	kg P eq.	0.00987	0.0354	0.0452	0.00173	0.0470
Eutrophication, marine	kg N eq.	0.623	2.83	3.45	1.83	5.28
Eutrophication, terrestrial	Mole of N eq.	6.73	31.8	38.5	11.9	50.4
Photochemical ozone formation, human health	kg NMVOC eq.	1.78	7.79	9.57	3.36	12.9
Resource use, mineral and metals	kg Sb-eq.	5.07E-05	5.96E-05	1.10E-04	8.06E-05	1.91E-04
Resource use, fossils	MJ	4,460	10,600	15,100	8,430	23,500
Water use	m ³ world equiv.	46.5	345	391	2,950	3,340

Primary Energy Demand (PED)

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Use of renewable primary energy	MJ	45,800	16,600	4,830	4,830	62,400
Primary energy resources used as raw materials	MJ	15.3	0	0	0	15.3
Total use of renewable primary energy resources	MJ	45,800	16,600	4,830	4,830	62,400
Use of non-renewable primary energy	MJ	4,480	10,600	8,430	8,430	15,100
Non-renewable primary energy resources used as raw materials	MJ	0.653	0	0	0	0.653
Total use of non-renewable primary energy resources	MJ	4,480	10,600	8,430	8,430	15,100
Input of secondary material	kg	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	0	0	0	0
Use of non renewable secondary fuels	MJ	0	0	0	0	0
Use of net fresh water	m ³	5.63	31.4	68.6	68.6	37.0
Total use of non-renewable & renewable primary energy resources	MJ	50,300	27,300	77,500	13,300	90,800
% Total use of renewable primary energy resources	MJ	91.1%	61.0%	80.5%	36.4%	74.1%

Waste indicators

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Hazardous waste disposed	kg	1.53E-05	1.14E-06	4.14E-07	4.14E-07	1.65E-05
Non-hazardous waste disposed	kg	5.55	39.6	126	126	45.1
Radioactive waste disposed	kg	0.110	0.0327	0.0786	0.0786	0.143
Components for re-use	kg	0	0	0	0	0
Materials for recycling	kg	0	0	0	0	0
Material for energy recovery	kg	0	0	0	0	0
Exported electrical energy	MJ	0	0	0	0	0
Exported thermal energy	MJ	0	0	0	0	0

Tork Jumbo Toilet Roll T1 Universal-6

Article number(s): 2179142

1,000 kg air-dry tissue + 55 kg paper packaging + 23 kg plastic packaging = 1,078 kg total.

Content declaration: Paper >99% virgin kraft pulp. Bleaching agent: chlorine dioxide (elemental chlorine free).

Potential Environmental Impacts		Manufacture			Transport + Landfill	
Indicator	Unit	Upstream	Core	To Gate	Downstream	Total
Climate change, total	kg CO ₂ -eq.	-3,600	3,120	-485	3,470	2,980
Climate change, fossil	kg CO ₂ -eq.	275	975	1,250	910	2,160
Climate change, biogenic	kg CO ₂ -eq.	-3,880	2,140	-1,740	2,560	821
Climate change, land use and land use change	kg CO ₂ -eq.	0.0900	3.21	3.30	0.0549	3.36
Ozone depletion	kg CFC11-eq.	4.58E-09	5.06E-10	5.09E-09	3.34E-09	8.43E-09
Acidification	Mole of H ⁺ eq.	1.73	8.85	10.6	5.16	15.7
Eutrophication, freshwater	kg P eq.	0.00968	0.0354	0.0450	0.00171	0.0468
Eutrophication, marine	kg N eq.	0.610	2.83	3.44	1.99	5.43
Eutrophication, terrestrial	Mole of N eq.	6.60	31.2	37.8	13.5	51.3
Photochemical ozone formation, human health	kg NMVOC eq.	1.75	7.80	9.54	3.80	13.3
Resource use, mineral and metals	kg Sb-eq.	5.14E-05	5.89E-05	1.10E-04	8.77E-05	1.98E-04
Resource use, fossils	MJ	4,490	10,800	15,300	9,760	25,000
Water use	m ³ world equiv.	46.2	339	386	3,590	3,970

Primary Energy Demand (PED)

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Use of renewable primary energy	MJ	45,400	14,000	3,830	3,830	59,400
Primary energy resources used as raw materials	MJ	15.2	0	0	0	15.2
Total use of renewable primary energy resources	MJ	45,400	14,000	3,830	3,830	59,400
Use of non-renewable primary energy	MJ	4,510	10,800	9,770	9,770	15,300
Non-renewable primary energy resources used as raw materials	MJ	0.719	0	0	0	0.719
Total use of non-renewable primary energy resources	MJ	4,510	10,800	9,770	9,770	15,300
Input of secondary material	kg	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	0	0	0	0
Use of non renewable secondary fuels	MJ	0	0	0	0	0
Use of net fresh water	m ³	5.60	31.0	66.0	66.0	36.6
Total use of non-renewable & renewable primary energy resources	MJ	49,900	24,800	74,700	13,600	88,300
% Total use of renewable primary energy resources	MJ	91.0%	56.4%	79.5%	28.1%	71.6%

Waste indicators

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Hazardous waste disposed	kg	1.35E-05	1.15E-06	4.26E-07	4.26E-07	1.47E-05
Non-hazardous waste disposed	kg	5.37	39.6	114	114	45.0
Radioactive waste disposed	kg	0.109	0.0327	0.0786	0.0786	0.142
Components for re-use	kg	0	0	0	0	0
Materials for recycling	kg	0	0	0	0	0
Material for energy recovery	kg	0	0	0	0	0
Exported electrical energy	MJ	0	0	0	0	0
Exported thermal energy	MJ	0	0	0	0	0

Tork Soft Mini Jumbo Toilet Roll T2 Advanced-12

Article number(s): 2306898

1,000 kg air-dry tissue + 35 kg paper packaging + 9 kg plastic packaging = 1,044 kg total.

Content declaration: Paper >99% virgin kraft pulp. Bleaching agent: chlorine dioxide (elemental chlorine free).

Potential Environmental Impacts		Manufacture			Transport + Landfill	
Indicator	Unit	Upstream	Core	To Gate	Downstream	Total
Climate change, total	kg CO ₂ -eq.	-3,520	3,120	-401	3,330	2,930
Climate change, fossil	kg CO ₂ -eq.	235	974	1,210	675	1,880
Climate change, biogenic	kg CO ₂ -eq.	-3,750	2,140	-1,610	2,650	1,040
Climate change, land use and land use change	kg CO ₂ -eq.	0.0623	3.21	3.28	0.0580	3.33
Ozone depletion	kg CFC11-eq.	4.24E-09	5.10E-10	4.76E-09	2.18E-09	6.93E-09
Acidification	Mole of H ⁺ eq.	1.58	8.64	10.2	3.55	13.8
Eutrophication, freshwater	kg P eq.	0.00913	0.0354	0.0445	0.00175	0.0463
Eutrophication, marine	kg N eq.	0.553	2.69	3.25	1.66	4.91
Eutrophication, terrestrial	Mole of N eq.	6.01	30.3	36.3	10.0	46.3
Photochemical ozone formation, human health	kg NMVOC eq.	1.59	7.42	9.01	2.88	11.9
Resource use, mineral and metals	kg Sb-eq.	3.18E-05	5.95E-05	9.13E-05	7.41E-05	1.65E-04
Resource use, fossils	MJ	3,570	10,500	14,000	7,180	21,200
Water use	m ³ world equiv.	38.3	345	383	2,390	2,770

Primary Energy Demand (PED)

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Use of renewable primary energy	MJ	44,300	16,600	5,720	5,720	60,900
Primary energy resources used as raw materials	MJ	15.4	0	0	0	15.4
Total use of renewable primary energy resources	MJ	44,300	16,600	5,720	5,720	60,900
Use of non-renewable primary energy	MJ	3,580	10,500	7,180	7,180	14,000
Non-renewable primary energy resources used as raw materials	MJ	0.360	0	0	0	0.360
Total use of non-renewable primary energy resources	MJ	3,580	10,500	7,180	7,180	14,000
Input of secondary material	kg	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	0	0	0	0
Use of non renewable secondary fuels	MJ	0	0	0	0	0
Use of net fresh water	m ³	5.31	31.4	71.0	71.0	36.7
Total use of non-renewable & renewable primary energy resources	MJ	47,900	27,100	75,000	12,900	87,900
% Total use of renewable primary energy resources	MJ	92.5%	61.4%	81.3%	44.4%	75.8%

Waste indicators

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Hazardous waste disposed	kg	8.57E-06	1.14E-06	4.03E-07	4.03E-07	9.70E-06
Non-hazardous waste disposed	kg	3.17	39.6	137	137	42.8
Radioactive waste disposed	kg	0.0916	0.0327	0.0787	0.0787	0.124
Components for re-use	kg	0	0	0	0	0
Materials for recycling	kg	0	0	0	0	0
Material for energy recovery	kg	0	0	0	0	0
Exported electrical energy	MJ	0	0	0	0	0
Exported thermal energy	MJ	0	0	0	0	0

Tork Mini Jumbo Toilet Roll T2 Universal-12

Article number(s): 2306897

1,000 kg air-dry tissue + 33 kg paper packaging + 8 kg plastic packaging = 1,041 kg total.

Content declaration: Paper >99% virgin kraft pulp. Bleaching agent: chlorine dioxide (elemental chlorine free).

Potential Environmental Impacts		Manufacture			Transport + Landfill	
Indicator	Unit	Upstream	Core	To Gate	Downstream	Total
Climate change, total	kg CO ₂ -eq.	-3,610	3,110	-504	3,330	2,830
Climate change, fossil	kg CO ₂ -eq.	232	962	1,190	691	1,890
Climate change, biogenic	kg CO ₂ -eq.	-3,840	2,140	-1,700	2,640	940
Climate change, land use and land use change	kg CO ₂ -eq.	0.0600	3.21	3.27	0.0577	3.33
Ozone depletion	kg CFC11-eq.	4.22E-09	5.05E-10	4.72E-09	2.27E-09	6.99E-09
Acidification	Mole of H ⁺ eq.	1.57	8.52	10.1	3.59	13.7
Eutrophication, freshwater	kg P eq.	0.00908	0.0354	0.0444	0.00175	0.0462
Eutrophication, marine	kg N eq.	0.548	2.70	3.25	1.66	4.91
Eutrophication, terrestrial	Mole of N eq.	5.96	29.8	35.8	10.0	45.8
Photochemical ozone formation, human health	kg NMVOC eq.	1.57	7.45	9.03	2.89	11.9
Resource use, mineral and metals	kg Sb-eq.	3.01E-05	5.88E-05	8.89E-05	7.51E-05	1.64E-04
Resource use, fossils	MJ	3,490	10,600	14,100	7,350	21,500
Water use	m ³ world equiv.	37.7	339	377	2,480	2,860

Primary Energy Demand (PED)

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Use of renewable primary energy	MJ	44,200	14,000	5,570	5,570	58,200
Primary energy resources used as raw materials	MJ	15.4	0	0	0	15.4
Total use of renewable primary energy resources	MJ	44,200	14,000	5,570	5,570	58,200
Use of non-renewable primary energy	MJ	3,500	10,600	7,350	7,350	14,100
Non-renewable primary energy resources used as raw materials	MJ	0.323	0	0	0	0.323
Total use of non-renewable primary energy resources	MJ	3,500	10,600	7,350	7,350	14,100
Input of secondary material	kg	0	0	0	0	0
Use of renewable secondary fuels	MJ	0	0	0	0	0
Use of non renewable secondary fuels	MJ	0	0	0	0	0
Use of net fresh water	m ³	5.28	31.0	70.6	70.6	36.2
Total use of non-renewable & renewable primary energy resources	MJ	47,700	24,600	72,300	12,900	85,200
% Total use of renewable primary energy resources	MJ	92.7%	56.8%	80.4%	43.1%	74.8%

Waste indicators

Indicator	Unit	Manufacture			Transport + Landfill	
		Upstream	Core	To Gate	Downstream	Total
Hazardous waste disposed	kg	8.16E-06	1.15E-06	4.04E-07	4.04E-07	9.31E-06
Non-hazardous waste disposed	kg	2.99	39.6	135	135	42.6
Radioactive waste disposed	kg	0.0902	0.0327	0.0787	0.0787	0.123
Components for re-use	kg	0	0	0	0	0
Materials for recycling	kg	0	0	0	0	0
Material for energy recovery	kg	0	0	0	0	0
Exported electrical energy	MJ	0	0	0	0	0
Exported thermal energy	MJ	0	0	0	0	0

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EPD registration and verification

Declaration owner:



Essity Ltd

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Email: customerservice.ANZ@essity.com

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EPD produced by:



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Email: anz@thinkstep.com

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EPD programme operator:



EPD Australasia Ltd

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Post: 315a Hardy Street, Nelson 7010, New Zealand

Product Category Rules (PCR):

ANZSIC v1.0 classification:

UN CPC v2 classification:

PCR review was conducted by:

Independent verification of the declaration and data, according to ISO 14025:2006:

Third party verifier:



Life Cycle Logic

Approved by:

PCR 2011:05 Tissue Products, Version 3.0.1, 2022-04-20

C152400: "Sanitary Paper Product Manufacturing"

32131: "Toilet or facial tissue stock, towel or napkin stock and similar paper, cellulose wadding and webs of cellulose fibres"

The Technical Committee of the International EPD® System.
Chair: Massimo Marino. Contact via info@environdec.com.

☐ EPD process certification (Internal)

☒ EPD verification (External)

Andrew D Moore, Life Cycle Logic

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EPD Australasia Ltd

Procedure for follow-up of data during EPD validity involves third party verifier:

☒ Yes ☐ No

Version history

v1.0 Initial release

v1.1 Correction to POCP results

v1.2 Addition of Tork Soft Mini Jumbo Toilet Roll T2 Advanced

v1.3 Addition of Sorbent Hypo-Allergenic 12-Pack and Purex Mega 6-Pack

v2.0 Revision of all data. Addition of new products across all categories.

V3.0 Revision of all data from 2018 to 2022. Revision of impact indicators in line with EN15804+ A2.

Addition of the following products to EPD:

- Sorbent Thick & Large Roll-8

Removal of the following from EPD:

- PUREX,TOILET,2P,DECOR,12SX4
- PUREX,TOILET,2P,DECOR,4SX12
- PUREX,TOILET,2P,DECOR,6SX12
- PUREX,TOILET,2P,WHITE,18SX4
- PUREX,TOILET;2P,DECOR,MEGA,4Sx6
- SORBENT,TOILET;EXT,3P,WHT,18Sx4

The EPD owner has the sole ownership, liability and responsibility for the EPD.