CONTEC PROFESSIONAL

Premira® II Microfiber Floor Mop Pads vs. Generic Reusable Microfiber Mop Pads

Clean counts most

LIFE CYCLE ASSESSMENT SUMMARY

professional.contecinc.com

In a Life Cycle Assessment (LCA) study conducted by NSF International™ and WAP Sustainability Consulting, the environmental impacts of Contec's Premira® II Microfiber Mop Pads were compared to that of generic reusable microfiber mop pads. **The study results showed that Premira® II Microfiber Mop Pads are the better option for minimizing negative impacts on the environment.**

In evaluating the two types of products, the LCA examined five phases of product life:

Raw material sourcing and manufacturing | **Transportation to customer** | **Use** | **Maintenance** (for reusable mop pads) | **End of life** (Disposal assuming 80% landfill/20% incineration)

For each phase, the following impact categories were examined:

Climate Change/ Global Warming Potential (GWP)
Amount of greenhouse gas emissions such as carbon dioxide and methane

Acidification Potential (AP)
Emissions that cause acidifying effects to the environment (i.e. acid rain)

Eutrophication Potential (EP)
Oxygen depletion resulting from nutrient enrichment of water or soil

Ozone Depletion Potential (ODP)
Effectiveness of a given compound in removing ozone

Smog Potential (SP)
Air pollution from fuel combustion

Abiotic Depletion Potential (ADP)
Depletion of fossil fuels

Water Usage (WU)
Consumption of freshwater

Across all impact categories, Contec's Premira® II Microfiber Mop Pads are more environmentally friendly than reusable alternatives.

Global Warming Potential

Despite being disposed after each use, Contec's Premira® II Microfiber Mop Pads exhibit substantially lower Global Warming Potential impacts than reusable alternatives. Reusables are laundered, reused and then disposed after their useful lifetime. The maintenance phase for reusables is very energy intensive. As a result, reusables contribute over twice the amount of greenhouse gases as Premira® II Microfiber Mop Pads based on 100 uses.

Acidification Potential

The maintenance associated with reusable microfiber mops increases their Acidification Potential. The use of electricity and thermal energy during washing and drying are major causes of sulfur dioxide and nitrogen oxide emissions. Manufacturing 100 Premira® II Microfiber Mop Pads is less energy intensive than washing a reusable mop 100 times.

Eutrophication Potential

For Premira® II Microfiber Mop Pads, manufacturing accounts for 50% of Eutrophication Potential. For reusables, 86% of EP is attributed to maintenance due to large amounts of water used to wash the mops and discharge of disinfectants and detergents.

Ozone Depletion Potential

For both products, the use and disposal of residual disinfectants contributes to ozone depletion. However, maintenance of the reusable mops makes their ozone impact dramatically higher than from Premira® II Microfiber Mop Pads.

Smog Potential

The electricity and heat used to launder reusable mop pads contributes more to smog production than the total of all life phases for Premira® II mop pads.

Abiotic Depletion Potential

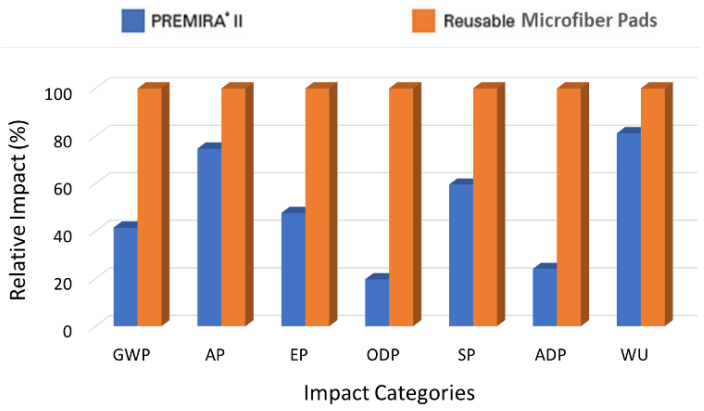
Incineration with energy recovery for Premira® II Microfiber Mop Pads have negative emissions due to the credits received from sending energy back to the grid. Otherwise, the manufacturing phase is the most significant contributor to ADP for Premira® II Microfiber Mop Pads. The maintenance phase for reusable mop pads is the largest contributor to ADP due to high energy consumption.

Water Usage

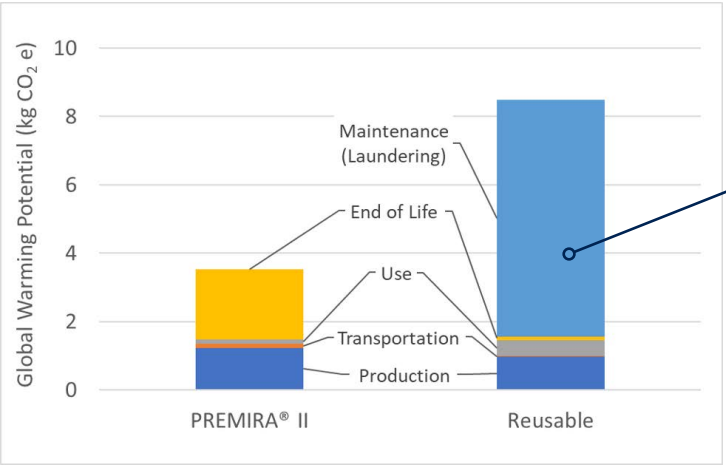
Overall, one reusable mop pad uses more freshwater over 100 uses than 100 Premira® II Microfiber Mop Pads. The majority of the reusable mop pad's freshwater consumption is from the laundering process of the maintenance phase.

Premira® II has ***Less*** Relative Impacts for **All** Categories than Reusable Microfiber Mops (100 Uses)

The analyses for reusable microfiber mops assumed the pads are laundered on site. Reusables laundered at an off-site facility may create even higher environmental impacts due to transportation.

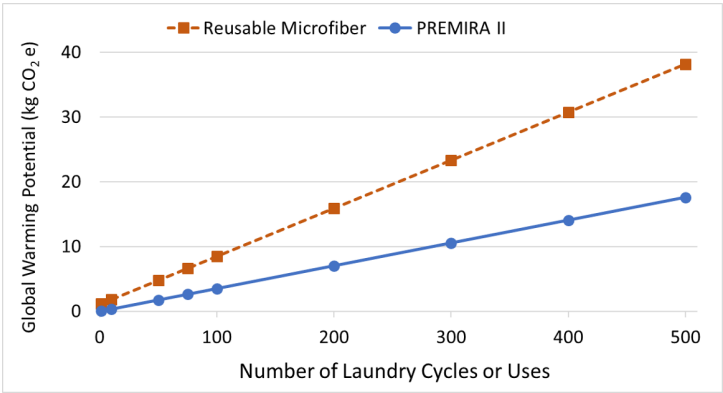


Laundering is the Single Greatest Contributor to Global Warming Potential (GWP) over 100 Uses



While disposal (80% landfill/ 20% incineration) at the end-oflife is the greatest contributor to GWP for Premira® II microfiber pads, the maintenance phase (laundering) for reusable microfiber mop pads has a much greater environmental impact.

The Relative Impacts on Global Warming Potential ***Increase*** with the Number of Uses of a Mop Pad



Contrary to the belief that re-use is always better for the planet, the impacts on GWP and other impact categories **get worse** with more laundry cycles.

Conclusions

Contec's Premira® II Microfiber Mop Pads are the better option for minimizing negative impacts on the environment.

The overall environmental impacts across all phases and categories combined are substantially less for Premira® II Microfiber Mop Pads than reusable microfiber mop pads.

The disposal of 100 Premira® II Microfiber Mop Pads has less environmental impact than washing one reusable mop 100 times.

One reusable mop pad uses more water over 100 uses than 100 Premira® II Microfiber Mop Pads.

The ongoing maintenance (washing, drying) associated with reusable microfiber mop pads reduces their environmental friendliness in every impact category considered in the LCA.

NSF WAP SUSTAINABILITY CONSULTING

The LCA was independently verified to conform to applicable ISO standards.

PCA029 | 102423

Contec, Inc.
Spartanburg, SC 29303 USA
tel: +1-864-503-8333
professional.contecinc.com

Customer Service
tel: 1-888-699-9304
cs_proclean@contecinc.com

CONTEC® PROFESSIONAL