



Processing Reusable Microfiber Cleaning Products for Use in Healthcare

Healthcare Laundry Accreditation Council

May 2021

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SUMMARY

This report, the second in an HLAC series on reusable microfiber cleaning products in healthcare, seeks to provide the reader with an overview of the proper processing requirements that are so entailed in their use. Reusable microfibers have different processing requirements from those of bulk healthcare linen items. We'll look at those differences, and the standards involved in soil sorting, washing, drying, inspecting, folding, stacking, packaging, and finally distribution. We will address processing requirements only for reusable microfiber wipers and mops. It should be noted that accredited healthcare laundries already follow these standards.



Different Requirements

In an earlier report, [“Navigating Our New World of Reusable Microfiber Cleaning Products for Use in Healthcare”](#) (February 2021), we noted that, when used and processed appropriately, reusable microfibers offer clear environmental advantages, superior performance, financial benefits, and more predictable availability.

Be that as it may, reusable microfibers have unique processing requirements that are different from those of bulk healthcare linen items such as sheets, blankets, terry, and patient gowns. High-quality microfibers, which are recommended, are more expensive since they are constructed of high-tech materials and



manufactured under rigorous manufacturing practices. They are often more susceptible to damage from improper processing in the washer or dryer. In addition to the normal hygiene cleanliness processing standards that hold for all healthcare textiles, reusable microfibers for use in healthcare must retain their cleaning properties even after a specified number of uses and processing cycles. If processed incorrectly, they will lose their cleaning performance advantages. The risk is a healthcare environment that was not cleaned properly. When processed and used according to standards, high-quality reusable microfibers cleaning products for use in healthcare should last for more than 100 use and processing cycles.

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SOIL SORT

Because reusable microfibers have unique processing requirements, they must be handled separately from other textile items. The microfibers should arrive at the laundry in protective bags, either pre-sorted or mixed with other healthcare textiles (HCTs).

If they arrive together, the first step is to sort the reusable microfibers separately from all other textiles. Moreover, although microfiber mops and cloths can be sorted together, it is better to keep them separate due to their different drying requirements. For example, cloths may dry more quickly than mops and, therefore, drying according to mop requirements may result in burning/damaging microfiber cloths. Additionally, many microfiber mops have a sticky Velcro on the back that is exceptionally attractive to microfiber cloths. After drying, it can be labor-intensive and challenging to pull apart the wipers that are stuck to the mop backs.



Reusable microfiber cleaning products should never be mixed with other HCTs such as sheets, blankets, towels, or other cotton cleaning products. These products have vastly different wash formulas and dry cycles. Mixing them will either yield damage to one category or even unclean a product in another category.

THE WASH PROCESS

Accurate washing of reusable microfibers for cleaning ensures that they maintain their designed physical properties and perform as intended for their designed life cycle. Additionally, it will confirm that they are free of pathogens that can cause human illness.

The magical properties that make high quality reusable microfiber products so ideal for cleaning include increased tensile strength, high durability, exceptional absorbency, and superior cleaning action.

The magical properties that make high-quality reusable microfiber products so ideal for cleaning make proper washing imperative. Since high-quality reusable microfiber cleaning products are so attractive to the soils commonly found in healthcare settings, releasing these soils in the wash requires more chemistry, time, and temperature than other light soil wash formulas.

A good clean test for after the wash is to soak the washed product in a white bucket filled with clean water. If the water remains clean, your wash was effective in removing most soils. If the water becomes dirty, the wash formula must be adjusted. Work with your chemical vendor to get these critical wash formulas dialed in.

An accurate wash must always begin with a proper washer and a correct load size. It is advisable to wash reusable microfibers for cleaning in an open pocket washer-extractor (WE) if possible. Load sizes must match the washer capacity.



Underloading or overloading will result in insufficient wash chemistry, inadequate mechanical action, and ultimately a dirty product.

Reusable microfibers for cleaning should always arrive from the manufacturer with instructions for use including wash instructions. Follow these precisely, especially chemistry, water levels, and temperature. Only use bleach if directed. Softener may degrade performance. Always protect reusable microfibers for cleaning from air, surface, or hand contamination on the journey to the dryer. Never let clean reusable microfibers sit in a washer for an extended period.

DRYING

Most premature damage to reusable microfibers for cleaning occurs during drying. Either the temperature is too hot, the time is too long, or there is inadequate air circulation.

Most reusable microfibers are constructed of synthetic fibers that dry quickly and at lower temperatures (< 150 degrees F.). Over drying will burn or weaken fabrics causing a loss of performance.

Different reusable microfiber cleaning products (e.g., mops vs. cloths) will usually have different drying requirements. To be precise, dry them separately.

Be sure to keep dryer lint traps clean to ensure good air circulation. If lint traps are dirty, this will show up on the microfibers as dirt, hair, or other contaminants. Keep dryer drums clean and free of nicks and cuts to prevent cutting.

Be sure to adequately cool the loads before removing them from the dryer. Otherwise, you risk condensation when they cool after packaging or, worse, a fire from spontaneous combustion.

As we've already noted, different reusable microfiber cleaning products (e.g., mops vs. cloths) will usually have different drying requirements. To be precise, dry them separately. If this is not possible then dry longer on lower heat to make sure all product is dry and lighter product does not burn or melt.



Always protect reusable microfibers from air, surface, or hand contamination on the journey from the dryer to the inspection room. Never let clean and dry reusable microfibers sit in dryers or an exposed area for long periods. Time spent unprotected means a potential risk for contamination.

INSPECTING AND PACKAGING

Reusable microfiber cleaning products should be inspected and packaged on the finish side of a healthcare laundry in a well-lit area. They need not be processed in a more controlled pack room. Per HLAC Standards, the finish side must be functionally separate from any soiled linen activities and it must have positive air pressure relative to soiled linen areas to prevent air contamination.

Inspectors should check microfibers for the presence of stains, residue, physical defects, chemical or thermal damage, and foreign debris. Pay close attention for hair, especially on cloths and the back of mops. Because these products have such a strong positive charge, they will attract hair and dirt strongly. Microfibers with physical defects such as tears, stains, holes, or structural weaknesses should be repurposed or taken out of service.

Packaging should be by color and type and in fixed package quantities (e.g., 5, 10, 15, etc.). Always label quantities on the package and the cart. Be sure product is fully cooled and dry before wrapping. Hot product will generate condensation if it cools while wrapped. This can cause contamination and loss of performance.

The finished packages and bulk loose microfibers must be packaged in a suitable material (e.g., placed in covered carts or wrapped in plastic) to avoid contamination during transport to the customer.



CONCLUSION

The many benefits of reusable microfiber cleaning products for use in healthcare are undisputable. They are more cost-effective, more comfortable, leave a smaller environmental footprint and produce better outcomes for patients and clinical practitioners, and more. But proper processing is imperative, so they function as designed. COVID-19 has highlighted many of the risks of relying on fragile supply chains where disposable products are manufactured thousands of miles from the end-user in factories with suspect quality practices. As a result, it is easy to understand why an unprecedented number of healthcare organizations have converted to reusable microfiber cleaning products – and are having them processed by accredited laundries.

***About the Author**

Gregory Gicewicz (photo, right) is distinguished in the reusable textile industry as a tireless advocate for increasing awareness of the significant role that having high standards in the processing of healthcare laundry plays in broader infection prevention strategy. He is president & CEO of [Sterile Surgical Systems](#), a full-service accredited healthcare laundry and reusable sterile surgical textile pack manufacturer. He is past president of the Healthcare Laundry Accreditation Council (HLAC), currently serves as HLAC inspection committee chair, and led a committee that developed the HLAC Laundry Process Monitoring Toolkit.



About HLAC

The [Healthcare Laundry Accreditation Council](#) (HLAC) the leading nonprofit organization that inspects and accredits laundries that process reusable textiles for hospitals, nursing home and other healthcare facilities – based on the highest, professionally recognized standards for patient safety and infection prevention.



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