

# Do You Really Know the Mop You're Using?

## Cleanroom Mops: Disposable vs. Reusable

With pharmaceutical and medical device customers demanding cost reductions, attention is often given to consumable products such as gloves, wipes, and mops that are used in their controlled environments every day and in large quantity.

Mop cleaning in these environments is critical: to clean and maintain the production environment at a level (of cleanliness, biologic control, sterility, etc.) which ensures the required product quality. Without such cleaning, producing the desired product would be impossible.

The task then is to reduce cost while maintaining the required environmental standards. Customers often look to their suppliers for savings, but are unaware of the consequences of some of these efforts. A good example of this is the consideration to use disposable mops versus laundered reusable mops for cleanroom cleaning.

Use of disposable mops is very straightforward: a new mop is used to clean a specified area (floors, walls, etc.), then downgraded (for use in less critical areas), or discarded outright after the primary use. The surface area cleaned per mop is determined by sampling of critical metrics, and validated if the area is sterile.

Laundering and reuse of mops can seem like a cost effective alternative to disposable mops. Laundering typically involves a contract with an industrial laundry company such as Aramark Services or Prudential Cleanroom. These companies already launder other items such as garments, smocks, and shop rags for the customer. The laundry may sell mops directly to the customer, or rent them at a negotiated rate. Each mop is barcoded with customer and mop identification to enable tracking and control through the laundering process (and sterilization if needed) in order to return the same mops back to the customer through repeated processing.

*“Disposable mops provide consistent and predictable performance”*

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As with disposable mops, reusable mops require the same initial testing and validation to ensure they meet the application and environment requirements. But there can be real concerns regarding long-term performance and risk that must be considered.

Since disposable mops are made from new materials, they provide very consistent and predictable performance and results. While disposable mop manufacturing and material variables surely exist, their sources are generally few and well understood. This is especially critical for sterile applications, as the use of virgin materials that are less likely to have been exposed to unknown or potentially variable conditions and contaminants simplifies and benefits the validation.

With laundered reusable mops, unless the customer is large enough to fill a washer with enough of their own mops, mops from multiple customers are processed together. While the laundry makes every attempt to sort mops into wash loads by application, customers' cleaning solutions, or by industry, there is no way for the laundry to fully know or control the conditions and contaminants to which mops from various customers have been exposed. In the case of non-sterile mops, they may even be processed in a less controlled industrial laundry process rather than a cleanroom laundry process, resulting in a wider range of potential cross-contamination sources. Another important consideration is the quality of mops as received by the customer. With disposable mops, since each mop is newly manufactured,



the mops used during evaluation and validation will be essentially the same as the mops used over many months. In the case of laundered reusable mops, the performance and quality of the mops will change over time due to the inevitable degradation of the reused mop.

During the evaluation of reusable mops, it is necessary to project the performance and quality over time in order to estimate the life cycle and related costs of the mops. Because conditions (surfaces, solutions, protocols, frequency, etc.) for each customer are different, these projections cannot be any more than “guesstimates” of actual mop performance and life.

As a result, the actual quality, contamination profile, and performance of reusable mops will deviate over time from what was evaluated and predicted. Such deviation can certainly result in unintended and potentially unacceptable risk to the customer’s environment and processes. Understanding the real risk of using reusable mops can only be accomplished through repeated periodic revalidation.

So the decision whether to use disposable versus laundered reusable mops may boil down to a simple question: “Do you really know the mop you’re using?”

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*Contec offers more than 40 different types of disposable and reusable mops, most available validated sterile for use in aseptic processing and sterile core areas. To learn more, visit our website at [www.contecinc.com](http://www.contecinc.com), or contact your regional Contec representative.*



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