

Stainless Steel vs. Non-Porous Plastic in Healthcare

Executive Summary

According to the CDC, JCAHC*, and APIC, there is no regulatory mandate (or recommendation) dictating the use of either stainless steel mop buckets or non-porous injected molded polypropylene buckets in a healthcare environment.**

When determining the composition of cleaning tools, it is important to know stainless steel can react with certain chemicals such as bleach, which can then create a by-product of hydrochloric acid.

by:
Beatrix M. Schmidt, MS-HSA, LPN
Partner - HCI Consulting Group

Making the Decision Whether to use Stainless Steel or Non-Porous Injected Molded Polypropylene Mop Buckets and Wringers

What are the differences between stainless steel and non-porous injected molded polypropylene mop buckets and wringers as related to use in hospitals and infection control?

Both materials are non-porous and therefore will not retain moisture. They both need to be cleaned after use in order to prevent a biofilm from forming.

Stainless steel can react with certain chemicals such as bleach, which can then create a by-product of hydrochloric acid. The stainless steel will then over time become corroded and pitting may occur.

Non-porous injected molded polypropylene does not rust, tarnish or corrode. The concern when cleaning floors is that the mop water, mop head, bucket or wringer may aid in the transfer of bacteria, viruses and mold spores.

Whether it is non-porous injected molded polypropylene or stainless steel, if the bucket is not cleaned after use or if there are broken or rough areas on the surfaces then microorganisms can always find a place to exist and grow. Both types of buckets must be kept free of damage and be cleaned on a regular basis.

Non-Porous Polypropylene Plastic is:

- Rust-proof, tarnish-proof
- Lightweight
- Bleach resistant
- Recyclable



* Joint Commission on Accreditation of Healthcare Organizations

** Association for Professionals in Infection Control and Epidemiology



Filmop Equodose® Microfiber
Charging System



Filmop Alpha Mobile
Workstation



Filmop Twice Split
Bucket System



There are no regulatory directives that dictate which type of material to use. The main accrediting agency of hospitals is the Joint Commission on Accreditation of Healthcare Organizations. They issue standards that the hospitals are then to incorporate and follow.

The standards that housekeepers follow are called the Environment of Care Standards and then there are Infection Control Standards for nursing, housekeeping, and maintenance, which type of material to use in mop buckets.

The CDC published draft guidelines for Disinfection and Sterilization and for Environmental Infection Control in Healthcare Facilities (2001). The Association for Professionals in Infection Control and Epidemiology (APIC) published the APIC Guideline for Selection and Use of Disinfectants (1996). None of these organizations state that either stainless steel or non-porous injected molded polypropylene is preferable over the other.

In summary, there does not appear to be any regulatory mandate why one bucket should be chosen over the other. The facility policy may dictate that stainless steel is used, but there appears to be no regulatory directive that would justify this decision.

May 28, 2003