

INFORMATION

BULLETIN

**SUBJECT: Floor Finish – Resistance to
Disinfectant Cleaning**

**SECTION: II
NUMBER: 13
DATE: 6/1/03**

Due to repeated questions from healthcare accounts, our laboratory initiated a study to evaluate the effect of repeated use of phenolic and quaternary disinfectants on floor finishes.

The study utilized separate 12" x 12" vinyl composition tiles coated with all Reckitt Benckiser Professional finishes. Over a ten day period, these tiles were subjected to repeated cleaning/scrubbing with both phenolic and quaternary disinfectants to simulate the conditions found in a healthcare facility.

Many facilities repeatedly mop or scrub their floors and are concerned that the perceived harshness of the disinfectant, specifically phenolics, will remove finish and result in a need to recoat more often than would be required if using a standard floor cleaner.

The scrubbing method used during the evaluations included the use of a brush to simulate machine scrubbing and a sponge to simulate floor mopping. Tests were run on a Gardner straight line washability machine which simulates repeated scrubbing under controlled conditions to eliminate variables resulting from scrubbing the tile samples by hand. The Gardner machine is part of the recognized ASTM (American Society of Testing and Materials) method for determining floor film characteristics, such as resistance to detergents and disinfectants.

Separate samples consisting of three coats of finish were subjected to the following:

Professional LYSOL® Brand Deodorizing Cleaner diluted 1:64

- 200 cycles with bristle brush
- 100 cycles with bristle brush
- twice daily sponge mopping over a 10 day period

Professional AMPHYL® Disinfectant Cleaner diluted 1:200

- 200 cycles with bristle brush
- 100 cycles with bristle brush
- twice daily sponge mopping over a 10 day period

The Reckitt Benckiser Professional's finishes evaluated for this disinfectant resistance were:

MASTERPIECE® High Gloss Floor Finish
MASTERPIECE® Stone Sealer
METALIST™ Floor Finish
METALIST™ 20 Floor Finish
METALIST™ No Buff Floor Finish
METALIST™ Floor Sealer

Results of these evaluations indicated that neither phenolic or quaternary disinfectants exhibited any chemical degradation to the floor finish films. The films maintained their integrity, gloss and showed no removal as a result of repeated scrubbing. Before and after gloss meter readings were done on each test area to detect any changes of the film's ability to reflect light. This evaluation was also performed by ASTM methods.

Based on examination of these tile samples, we found no detrimental effects as a result of constant use of either phenolic or quaternary disinfectants.

It is recommended, especially when using quaternaries for general damp mopping, that an occasional wet mop or autoscrub procedure be used to prevent the build-up of the quaternary ingredient. It is a known fact that light damp mopping does not provide enough solubility to completely remove layers of quaternary actives that may have built up over time.

An Information Bulletin (Section II, #3 - Floor Care Quat Staining) discusses how to handle floors that have been stained by repeated damp mopping with quaternary disinfectants.