

An Unbiased Report

NO-FINISH FLOOR MAINTENANCE A NEW ERA



A 30% reduction in floor care costs was achieved at Henry Ford Hospital, Detroit, MI, with weekly buffing of its 183,000 square feet of Flexi-Flor® sheet rubber flooring.

Institutional no-wax flooring: Hospital money saver or housekeeping headache?

by RACHEL ZUCKER CYNAMON, Assistant Editor

NEW YORK, NY—A controversy is brewing over what just a few short years ago was hailed as a sure way for a health care facility to save money—installing no-wax flooring.

Most manufacturers are still claiming that the specially formulated flooring can slash hospital floor care costs by 25 to 40%, often recovering its premium price over regular tile within several months.

But, members of the waxes and floor finishes industry, in a new public relations campaign, are attacking the "no-wax" label, charging that this type of flooring could cost up to twice as much in the long run.

HEALTH CARE SYSTEMS analyzed the claims, counterclaims and experiences that hospitals have had with the product. We found that the truth about no-wax flooring lies somewhere in between. It is not the panacea that its advocates avow, nor is it a step in the wrong direction, as its critics charge. In addition, HEALTH CARE SYSTEMS describes an inexpensive, in-hospital test that can help the facility manager evaluate whether the added investment in no-wax flooring should be undertaken.

Contains stress absorbing foam

Generally, no-wax floors are multi-layer composites that contain a stress absorbing foam layer, a decorative pattern and a clear vinyl or urethane protective top coating. The coating gives the product its high-gloss sheen, added durability and stain resistance. While the typical commercial vinyl-asbestos tile costs about 80 cents per square foot, the no-wax tile could run as high as \$1.79.

Although no-wax floors have been around for more than 30 years, only in the past decade have they been introduced to the institutional market. The commercial flooring's wearlayer is about twice as thick as the wearlayer of the typical residential tile. The flooring also comes in 6-, 9-, or 12-foot sheets.

Most manufacturers recommend daily cleaning with a dry and/or damp mop with detergent, as well as an occasional dry or spray buffing to maintain no-wax floors.

The Waxes, Polishes and Floor Finishes Division of the Chemical Specialties Manufacturers Association (CSMA) calls the term "no-wax" just a "sales tool or gimmick." The CSMA says that it has scientific evidence that the protective wearlayer can only be maintained with routine waxing.

In 1979, the CSMA commissioned Booz, Allen and Hamilton, Inc., the well-known consulting firm, to evaluate three grades of no-wax floors. The tiles were placed in a hallway of a large junior high school for eight weeks. Half the floor was maintained with wax, the other half without.

Each week, the tiles were checked for scuffs, scratches and loss of gloss. The study concluded that the "uncoated flooring loses gloss faster than the coated flooring; and coated floorings were judged to have a more acceptable overall visual appearance . . . If the retention of the original flooring appearance without waxing is the prime claim of these products, a serious question of that claim's validity can be raised based on test results."

May require vigorous treatment

William R. Bryant, past division chairman of the Waxes, Polishes and Floor Finishes Division of the CSMA



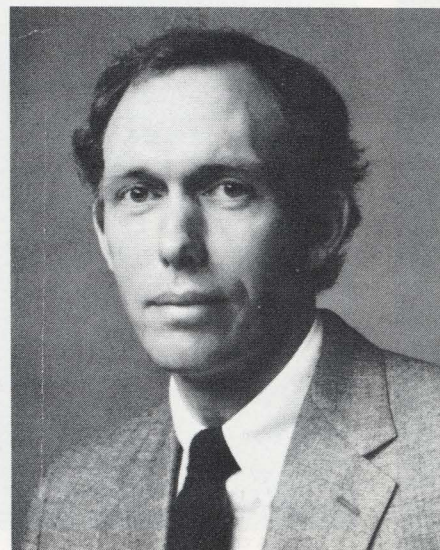
"Building managers who wish to keep their floors looking acceptable must use a wax," claims William R. Bryant, technical director, vice-president of the Carrol Co.

and member of the American Society for Testing and Materials (ASTM) puts it this way: "If an administrator spends 50% more for a no-wax floor and it loses gloss within two or three months, he may then have to treat the floor as vigorously as a standard floor. He's lost the 50% investment."

And Bryant adds, "Building managers who wish to keep their floors looking acceptable must use a wax. The coating ensures durability of the wearlayer and retains the floor's original luster." (Bryant is also technical director, vice president of the Carroll Co., Garland, TX, a manufacturer of hospital sanitation products.)

The CSMA means business. It is distributing a pamphlet entitled, *No-Wax Floors—A Miracle or a Mirage*; some 18,000 copies of the brochure have been circulated to date.

The flooring manufacturers are holding their ground. "No-wax flooring is no myth," says Scott Smith, director of sales and merchandising for Mannington Mills, Inc., Salem, NJ. But no-wax floors do require some maintenance, he claims. "Our JT-88 floors need dry buffing to restore their luster." JT-88 is a hybrid vinyl surface more resistant than PVC, a common flooring substance.



"No wax-flooring is no myth, but they do require some maintenance," says Scott Smith, director of sales and merchandising for Mannington Mills, Inc.

In response to a complaint against its advertising claims filed with the national advertising director of the Better Business Bureau, Mannington argued that its JT-88 Never-Wax floor could be maintained acceptably without a wax. Mannington submitted wear data from lab tests, new photographs of six- and seven-year-old installations and statements from consumers. The Better Business Bureau ruled in Mannington's favor.

Mannington markets three varieties of commercial no-wax floors: Aristicon, Classicon (both JT-88) and Architects' Choice. The latter is a lower-gloss product with a PVC coating. The company recommends it for heavy-use facilities, such as hospitals. Architects' Choice costs from \$1.20 to \$1.35 per square foot installed; Aristicon costs from \$1.85 to \$2.00 per square foot.

Congoleum Corp. of Kearny, NJ, produces a non-porous PVC-treated sheet flooring called Flor-Ever. It costs approximately \$1.12 to \$1.67 per square foot installed, depending on the type and location of the installation.

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"Adding a vinyl dressing to our floors does not increase durability," claims Congoleum's H. Lawrence Biester, manager of marketing for the commercial contract division. "Doing so is strictly for aesthetic purposes." Biester says that the floor does not need waxing, although the company recommends occasional spray buffing with a special finish that it manufactures. The frequency depends on the floor's traffic, says Biester.

Claims floors last longer

National Floor Products Co. of Florence, AL, produces a medium-priced (99 cents per square foot) no-wax tile called Commercial Thru-Chip. It is a solid vinyl tile. "Under normal traffic conditions," says Edsel Holden, vice president, "our floors will last twice as long as floors that need waxing."

The R.C.A. Rubber Co., Akron, OH, which manufactures a no-finish sheet rubber flooring (Flexi-Floor, \$2.00 to \$2.50 per square foot installed) says that it should



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be maintained with a high-speed (over 1,000 RPM) dry buffing. "This could trim up to 50% off floor care costs via labor savings," claims David B. Harris, district sales manager.

What are hospital administrators and housekeepers—perhaps the best judges of no-wax floors—saying? The reviews are mixed.

Many administrators are pleased with the performance of no-wax floors. Robert Ingram, housekeeping director at Carson Tahoe Hospital, Carson City, NV, says that the no-wax flooring in the hospital's birthing room is maintained with just daily mopping and weekly spray scrubbing with a disinfectant. "If it's held up so well for almost two years in a room where so much activity goes on, it would perform just as well in all hospital areas," he asserts.

Daniel Stoecklin is director of environmental services at Henry Ford Hospital, Detroit, MI, a complex of 21 buildings with a total floor space of over three million square feet—about one-half mil-

lion covered with no-wax goods. Stoecklin set up a "preventive maintenance" program that involved immediately polishing the no-wax floors, spray buffing weekly as opposed to daily and scrubbing and recoating only as necessary. Total stripping of floor polish has not taken place for 2½ years. "It's a minimum maintenance program" he reports. The result: the hospital's floor care costs were cut by 30%.

In one new building which will house 48 CCU beds, the OR, ER, two floors of X-ray and pharmacy, Henry Ford Hospital installed no-finish sheet rubber flooring. "The hospital realized its cost saving potential," Stoecklin says. In the past six months that the ER has been opened, the floors have been mopped daily with disinfectant and dry buffed once a week at high speed.

"I am really tracking this floor very closely," he adds. "So far, the hospital is very pleased, and although I had my doubts, we are seeing excellent results."

At the 99-bed North Las Vegas Hospital, the no-wax floors in the corridors and a few patient rooms are finished and spray buffed, but about one-fourth as often as the other floors. "We maintain them less," says Edward Huffman, director of housekeeping. "Instead of waxing once a week, we wax them once a month. Also, we use much less finish on them."

According to the hospital's chief engineer, Leroy Gamble, "We have no excessive wear problems with these floors. They are easy to maintain and stains clean up easily."

William Bell, assistant director of environmental services at Harper Grace Hospital, Harper Division, Detroit, MI, says that the 600 square feet of no-wax flooring in the four heavily-trafficked respiratory therapy rooms have not been waxed since their installation eight months ago. "It is no-wax for a period of time," he says, "When the floors begin to show wear, we are prepared to start waxing them. Even though we have heavy equipment rolled around on the floors, there has been no real loss of gloss. I feel that with no-wax flooring in general, you can get up to a year without applying a finish. You would not expect that with a regular floor."

Other hospital administrators, however, are dead-set against institutional no-wax flooring. Don Kelly, director of housekeeping at Johns Hopkins Hospital in Baltimore, MD, says that the 5,000 square feet of no-wax floors (mostly in laboratories) are waxed just as regularly as the other hospital floors. "Based on my experience, I see no difference between maintaining no-wax floors and other institutional flooring," he states. "No-wax flooring lasts longer if it is protected with a dressing . . . it scuffs more easily, and durability is less."

According to another housekeeping director in a 167-bed Tennessee hospital who does not wish to be named, "I am not satisfied with the no-wax flooring that was put into our ER nine months ago. There are many black scuff marks from the shoes and transport carts." The director is now considering scrubbing down the floor and applying a finish on it. "I am really in a dilemma over what to do. I'm afraid that too much scrubbing will wear down the floor," he says.

Ann Vaughn, director of housekeeping at Providence Hospital, Washington, DC, reports, "We do not

have no-wax flooring. Some of the floors that were 'no-wax' didn't hold up. Now we use a polish." These floors are stripped once a year or less and refinished every three to four months. Some of the buildings have had no-wax floors for three years. "We really haven't seen any (no-wax brands) yet that was a quality we could accept," she says.

Test is suggested

With opinions so split, HEALTH CARE SYSTEMS suggests that the hospital administrator conduct the following test, based on the suggestions of National Floor Products' Edsel Holden and several housekeeping directors, before making an investment in no-wax flooring.

- Replace the floors in two elevators simultaneously—one with a no-wax brand, the other with a standard commercial grade.

- Maintain the floors as the manufacturers specify.

- Record scuffs, scratches, loss of gloss, stains, holes and overall appearance of the two floors each week for at least two months.

- Calculate the costs of the man-hours, products and machinery needed to maintain each floor.

- Review the data with the maintenance director (and the architect in the case of an addition) to determine whether no-wax flooring should be installed.

Elevators are an excellent place to conduct the test, since they require only about one box of tiles. Also, they are one of the most highly trafficked areas in the hospital. On the average, hospital elevator floors have to be replaced every two or three years.

As an administrator of a 700-bed Florida hospital who is now conducting such a test put it: "Both the no-wax flooring industry and the wax manufacturers have their territories to protect. Rather than rely on their evidence, I can rely on my own." ■

NOTE: Boldface emphasis added to editorial copy on preceding page.



NO FINISH MAINTENANCE PROCEDURES FOR THE R.C.A. RUBBER COMPANY'S FLOORING Flexi-Flor® and Target™ products

IT IS RECOMMENDED THAT NO FLOOR FINISH OR SEALERS BE USED ON OUR RUBBER FLOORING MATERIAL

Step 1 — Stripping as Needed

New Rubber Flooring should be thoroughly machine stripped and scrubbed with black* stripping pad and stripper. Use stripper manufacturer's recommended stripping procedure.

OR

General Cleaning

Clean floor thoroughly with a good grade of mild detergent cleaner. Use cleaner manufacturer's recommended cleaning procedure.

Step 2

Vacuum, mop or squeegee the stripper or detergent solution from floors; rinse floor surface with a solution of 10% Clorox®† in warm water (may need two or more rinses).

Step 3

Once floor is dry, buff floor using an *Ultra High Speed Buffer* with red* pad. After sheen is developed, a higher gloss may be obtained with white* super polishing pad. (Note: New Rubber Flooring will require more frequent buffing until a high sheen is acquired.)

Step 4

Dry dust or mop floors (do not use dusters or mops treated with mineral oil or other petroleum products).

Step 5

Periodically, mop floors using 5% solution of Clorox®† in water.

ALL ABOVE STEPS TO BE USED AS NEEDED.

*IT IS IMPORTANT TO KNOW THE VARIOUS KINDS OF PADS, WHAT THEY DO AND WHEN THEY SHOULD BE USED.

FOR EXISTING INSTALLATIONS OF FLEXI-FLOOR® PLEASE WRITE TO US FOR RECOMMENDATIONS.

†Clorox® the Clorox Company, Oakland, CA 94612

Gloss level will depend on frequency of buffing.

Test Data

RESISTANCE TO CHEMICALS AND SPILLAGE

| MEDIA | Stain Effects (1) After | | Swelling After | | Hardness (2) After | |
|----------------------|----------------------------|-------------|-------------------|---------|-----------------------|---------|
| | 1 hr. | 24 hrs. | 1 hr. | 24 hrs. | 1 hr. | 24 hrs. |
| Urine | None | None | None | None | 92 | 93 |
| Animal Blood | None | None | None | None | 93 | 93 |
| 70% Alcohol | None | None | None | None | 93 | 93 |
| Acetone | None | None | None | None | 93 | 93 |
| Chloroform | None | None | None | None | 92 | 92 |
| 37% Formaldehyde | None | Residue (3) | None | None | 92 | 93 |
| 0.5% Muriatic Acid | None | None | None | None | 93 | 93 |
| Carbon Tetrachloride | None | None | None | None | 93 | 93 |
| 5% Acetic Acid | None | None | None | None | 93 | 93 |

(1) All flooring washed with running water after exposure and using light scrubbing except as noted.

(2) Original Durometer A Hardness of Flooring: 93.

(3) White Residue removed with hard vigorous scrubbing.

Testing performed at:

Smithers Scientific Services, Inc.
Akron, Ohio



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