

COMMERCIAL FLOOR CARE GUIDE





creating better environments

IMPORTANT:

Please visit <u>www.forboflooringNA.com</u>

to download the latest version of this guide.

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Foreword

Forbo's Vision and Mission

As a global leader in flooring systems, we create better environments and more rewarding perspectives for all our stakeholders. Our way to serve and drive the market sets the pace and standard for world class flooring solutions.

At Forbo Flooring, creating better indoor environments, while fully and responsibly committing to sustainable, LCA-based, environmental practices, is our overriding objective. The rigorously controlled manufacture and subsequent installation of our flooring is only one part of Marmoleum's unequalled environmental profile. Proper floor care allows the maximum benefits of the product to come through. Indoor Air Quality and other health benefits, combined with reduced usage of chemicals of the proper environmental profile, that provide the desired aesthetic appearance while maximizing the long term performance of the floor is our goal. With our innovative Topshield2[™] finish, combined with improved approaches to interior maintenance, we can achieve that goal at the lowest possible cost in the industry today.

The finest floor covering made will not look good nor perform well if it is not installed and cared for properly. In the flooring industry, 97% - 98% of all complaints are installation, substrate or floor care related.

IMPORTANT!

This floor care guide is just one of the many technical support services provided by Forbo Flooring. Do not perform any floor care procedures until you are fully educated and familiar with the floor care procedures and recommendations. The procedures and recommendations described in this manual have been carefully developed to offer the best opportunity for a proper and successful outcome with Forbo products. Following these guidelines will offer the consumer the full value of the product. Any deviation from these guidelines may result in a flooring failure. Failure to follow these guidelines does not affect the manufacturer's limited warranty, but it does increase the risk of a flooring failure.

Thank you for choosing Forbo Flooring products and giving us the opportunity to help you create better environments for all.

Floor Care Training

Professionalism and Attitude

"Professionalism" is not merely possessing mechanical skills and knowledge, it is also an attitude. Having the right attitude and conducting yourself in a professional manner at all times is essential to gaining the respect of all those you come into contact with. Above all else, taking pride in your work is the key to successful outcomes.

Take the time to review the manufacturer's guidelines. If you ever have any doubts, do not proceed. Call your local supplier for further information. The liability rests solely with the flooring contractor and and/or any other installation or floor care companies involved on the project. The warranty from the manufacturer covers only the product, and is in no way contingent upon installation or floor care practices.

Professionalism and Attitude

The flooring industry is continually changing. In order to remain successful, those working in the industry must also change, and education is the key to this change.

The Forbo Floor Care Training Program has become an industry benchmark for floor care training. In addition to being dedicated to offering floor care technicians the most comprehensive and professional training in the industry, Forbo Flooring also offers an array of other educational opportunities such as product presentations, training seminars, hands-on clinics and demonstration clinics for all Forbo Flooring products.

In order to qualify for a certificate, the attendee must successfully and satisfactorily complete the tasks, have a thorough knowledge of the information presented throughout the course and, most importantly, demonstrate a professional attitude.

Upon successful completion of the course, the attendee will receive a certificate suitable for framing and a laminated wallet card to carry. Qualified attendees are maintained in a database utilized for referrals throughout North America.

Training Information

All Forbo Training Programs are currently offered at the following locations:

Hazleton, Pennsylvania Dallas, Texas Reno, Nevada Toronto, Ontario

Each course in Hazleton, Pennsylvania and Dallas, Texas is limited to twelve (12) attendees. Each course in Reno, Nevada and Toronto, Ontario is limited to six (6) attendees. All Forbo training courses are filled on a first come, first served basis.

Forbo will provide hotel accommodations, breakfasts and lunches, as well as transportation to and from the hotel and Training Facility. Each technician is responsible for his/her own dinner and travel expenses, including travel to the hotel from the airport. If you are a professional and desire to enhance your skills and knowledge, contact Forbo Technical Services.

FLOORING SYSTEMS Forbo Flooring Systems Attn: Technical Services P.O. Box 667 Hazleton, PA 18202 Email: <u>technicaltraining.na@forbo.com</u> Website: <u>www.forboflooringNA.com</u> Phone +570 459 0771 Fax +570 450 0330 Toll Free +800 842 7839



The Impact of Buildings & Our Environment

Commercial buildings in the United States significantly impact our environment.

They consume:

- 40% of total energy
- 65% of total electricity
- 38% of raw materials
- 12% of potable water

They produce:

- 5 billion pounds of cleaning and coating chemicals.
- 30% of greenhouse gas emissions.
- 30% of total waste output, representing 136 million tons annually.

The environmental impact of cleaning products resulting from the extraction of raw materials, their manufacture into finished goods, their transportation, storage, use and ultimate disposal is enormous. The impact of many of these products on building occupants and cleaning personnel health is also sizable. Building occupants spend substantial time within buildings. They can be exposed to chemicals and other substances resulting from the cleaning process for many hours each day. The same can be said for cleaning personnel who are in daily contact with cleaning chemicals. Creating a healthy environment by extracting the contaminants that normally enter buildings can greatly enhance worker productivity, performance and work quality as well as their sense of wellbeing.

At one time, cleaning for appearances may have been enough. No more. Building owners and managers are much more aware of the effect facilities have on health, safety and the environment, which in turn can have considerable financial impact.

Consider these facts:

- 1 of every 3 buildings has poor indoor environmental quality affecting the health of occupants, according to the World Health Organization (WHO).
- Contaminants are typically at a minimum 2 to 5 times worse indoors than outdoors, according to the U.S. EPA.
- Asthma has increased in young children by 160% since 1980, becoming the leading cause of disease-related absenteeism and accounting for more than 14 million lost days in school.
- Poor indoor air quality costs the U.S. economy \$60 billion of lost worker productivity every year, states the EPA.
- Building owners and managers are also becoming more aware of both the lifecycle cost of their buildings and the impact their ongoing operations have on the environment.
- 75% of a buildings lifetime costs are generated by alterations, energy and operations.
- Buildings consume 38% of all energy, use 65% of all electricity and add 40% to atmospheric emissions.
- Cleaning and maintaining commercial buildings requires 5 billion pounds of chemicals, 4.5 billion pounds of paper and 36 billion plastic trash liners.

This guide does not suggest that current cleaning procedures are in anyway inadequate or have created a condition placing building occupants, cleaning personnel or the environment at risk. Rather, it shows you how to go beyond traditional procedures to reduce the impact cleaning practices have on building occupants while at the same time maintaining or improving the health, comfort and appearance of a building.

Clearly, we have an opportunity to do better. We need to take a leadership role to protect the health of building occupants and cleaning personnel as well as reduce the overall impact on our environment.

Reducing Building Impacts & Costs

Smart building owners and managers in organizations from across all sectors and industries are taking action to reduce the negative impacts of their facilities. Forbo Flooring Systems is dedicated to help develop cleaning programs that go far beyond appearances.

By improving a building's environmental quality and sustainability with a cost neutral or cost reduction impact on operations through our floor care programs, facilities can provide a clean and safe work environment, increase employee productivity and satisfaction, and enhance the value and integrity of buildings while reflecting organizational mission and values. This can minimize the environmental, health and safety impact of your buildings on employees, tenants, occupants, customers, visitors and cleaning staff.

Implementation of new procedures, equipment and cleaning supplies, was found to decrease the levels of airborne dust inside the building by 52%. Total volatile organic chemical (VOC) concentrations decreased by 49%, total bacteria decreased by 40%, and fungi colony-forming units decreased by 61%.

Choosing environmentally preferable chemicals to care for your facility provides:

- A clear perspective on the need for green cleaning and green cleaning concepts.
- A review of market influences and individual responsibilities along with stewardship principles.
- Cleaning strategies, procedures and guidelines backed by the most up-to-date training support tools.
- Environmentally preferable janitorial guidelines for chemicals, paper and liners, and tools and equipment.
- A pathway to earn credits toward certification under the LEED[™] for Existing Buildings Green Building Rating System[™] (LEED-EB[™]) from the U.S. Green Building Council (USGBC).

A key part of operating facilities in an environmentally responsible way will help your organization achieve the benefits of operating a healthy environment by:

- Improving employee and occupant health.
- Improving worker/employee productivity.
- Reducing worker's compensation claims for custodial staff.
- Sustaining or improving organizational reputation and brand equity among employees, customers and the surrounding community.

LEED-EB[™] Certification

LEED[™] stands for Leadership in Energy and Environmental Design and is the industry standard used to determine just how "green" a building is. LEED-EB[™] certification aims to improve occupant well-being, environmental performance and economic returns of buildings using established and innovative practices, standards and technologies. Forbo's floor care recommendations provide you the potential to earn as much as one-third of the points needed for certification.

Stewardship Principles

Managing a building is a huge responsibility. As an asset it can be worth tens of millions of dollars and some historical buildings are irreplaceable. The materials of construction, energy and other products used in building operations have an enormous environmental impact. The impact of cleaning chemicals and processes makes an indelible impact on the lives of the people who work, visit and live in the building. Thus, Stewardship is about "care" for a building far beyond the basic operations.

Here are the 10 Stewardship Principles:

- 1. Go Beyond Appearances
- 2. Take a Holistic Approach
- 3. Educate and Communicate
- 4. Scheduled Routine Maintenance
- 5. Plan for Accidents
- 6. Minimize Exposure
- 7. Minimize Residue
- 8. Ensure Safety
- 9. Reduce All Pollutants
- 10. Safe Disposal

Developing a Strategy

Presidential Executive Order 13101, Section 201 defines "environmentally preferable" products as "products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. This comparison may consider raw materials acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance or disposal of the product or service." This definition of environmental preferability is consistent with the growing U.S. and international trend in this area, and as such, is an excellent conceptual definition of the term¹.

There are two critical elements in the definition of environmental preferability. The first is that it defines the issue as a comparison. It does not suggest that some are "bad" and others are "good." It does not describe the issue as black and white. Rather, it is a comparison in an effort towards the continual reduction of impact resulting from both products and services such as those provided by cleaning contractors or custodial staff. The second critical element is that the definition of "environmentally preferable" includes human health along with environmental impact.

Thus, the concept of environmental preferability is not intended to suggest that traditional products are "bad" or have put our cleaning personnel, building occupants and visitors or the environment at risk of harm or injury. Rather, the concept of environmental preferability is simply a decision-making strategy that takes advantage of the opportunities to reduce impact and perform tasks better. Considering the billions of pounds of chemicals (e.g., cleaner and floor coatings), paper (e.g., toilet tissue and hand towels) and plastic (e.g., trash can liners) used by the commercial cleaning industry to clean and maintain buildings, there exists an enormous opportunity to reduce the negative impacts of cleaning and have a positive influence on health and the environment.

For a guide to Forbo's "Cost of Ownership", visit www.forboflooringNA.com.

Develop a Purchasing Strategy

Historically, the decision-making matrix for product selection was primarily limited to cost and performance. While health, safety and environmental concerns have always existed, they often play too little or no role in the decision-making matrix. The traditional assumption has been that all products meet the minimum requirements, and thus are acceptable. Furthermore, many procurement personnel have the perception that all products used for specific tasks are essentially the same. Therefore, no additional consideration regarding health and environmental attributes was necessary.

While the traditional decision-making model may be adequate, it fails to recognize the advances that have been made in many product categories. For example, the paper industry has developed processes for using high levels of post-consumer content in paper products, a resource that was unavailable 20 years ago.

Furthermore, purchasing was often done independent of other facility issues, such as construction materials, flooring materials, HVAC issues, geographical location, occupant make-up, cleaning personnel, facility mission, etc. This limited focus resulted in a "one-size-fits-all" product solution which would only be the appropriate decision if all facilities, occupants, cleaning personnel, etc., were the same. Environmentally preferable purchasing expands the decision-making model and takes advantage of new technologies to reduce health and environmental impacts that may have far-reaching financial implications.

Cleaning Personnel Responsibility

The role that cleaning workers play in a cleaning program compared to are the day-to-day responsibilities for keeping facilities clean, removing trash, restocking restroom supplies, etc. Cleaning personnel are part of a Stewardship Team, not a group of individuals responsible for cleaning the building. The importance of their role in maintaining a healthy indoor environment should be elevated in stature throughout the facility. The result is improved communications, which in turn means there are fewer problems that can be solved more quickly and with less aggressive or toxic materials.

Customizing Your Floor Care Program

Forbo Flooring products are engineered to provide outstanding value in service and to look good over many years of use. However, in order to realize the maximum value of the floor over the long term, they must be properly installed and cared for. In the same way that a car needs gas, oil and regular servicing to run smoothly, a floor covering needs a regular servicing program to offer the ultimate performance.

When developing a customized floor care program, one issue that should be considered is accommodating people within a building or space that may have special needs. This includes the need to identify the most vulnerable population and the method for designing programs to create the healthiest environment.

The floor care guidelines that follow are intended to serve as a general guide and were developed with a focus on striking a balance between appearance and cost. The frequency and specific type of procedures required will vary depending on the application, type and volume of traffic, equipment and personnel resources available and the desired appearance of the floor.

Each of the following sections has recommended floor care chemicals to provide the best opportunity to care for your flooring and meet the needs of your facility. **If you prefer to use a manufacturer's floor care chemicals that are not listed, be sure to use a corresponding cross-referenced product.**

IMPORTANT: Forbo Flooring Systems does not warrant or guarantee the performance of other manufacturers' products mentioned in this document. For specific information regarding Forbo's warranty, visit <u>www.forboflooringNA.com</u> or contact Forbo Technical Services.

General Floor Care Guidelines

SAFETY FIRST! Wet floors may be slippery. Exercise caution when conducting wet cleaning procedures, especially in healthcare applications where protective footwear is worn. Always use proper signage and prohibit traffic until floors are thoroughly dry.

Color Selection

The color of a floor covering can play a significant role in the apparent cleanliness of the floor. Light colors tend to show dark colored soil and dark colors tend to show light colored soil. Patterned or marbleized floor coverings generally have better soil concealing characteristics than plain floorcoverings.

In applications where regular floor care may not be possible, the color and pattern of the floor covering will influence how long the floor will retain an acceptable appearance level between cleaning procedures. In areas where there is a higher risk of staining, a color that will help to mask potential stains should be chosen.

Entrance Systems

Because the majority of dirt (as high as 80%) entering any building comes in on people's footwear, it makes sense to incorporate an effective entrance system. An entrance system should extend far enough from the entrance so that the average person will take 4-10 steps while on the entrance system. 10 feet of an entrance system removes up to 70% of the walked-in soil and moisture. 20 feet of an entrance system removes up to 90% of the walked-in soil and moisture.

It is also important that the entrance system be maintained correctly in order to ensure that it is fulfilling its function. A good entrance system will not totally prevent soil from entering a building, but it will substantially reduce soiling and moisture from being tracked throughout the building at the point of entry. A quality entrance system will also make floor care easier.

Forbo's Coral[®] Entrance Systems can be permanently installed or used as a loose laid mat. Forbo also offers Nuway[®], a specifically designed mat well system. Regardless of the type of entrance system in place, they should be cleaned and cared for on a regular basis.

Petroleum and Anti-Oxidant Staining

Some rubber products, particularly dark colored ones like tires, casters, floor mats and asphalt sealers that are commonly used in parking lots and walkways, contain chemicals that can permanently stain floor coverings. Although the discoloration is generally less marked with linoleum flooring than with vinyl flooring, precautions should always be taken in areas such as hospitals, supermarkets or automobile showrooms where potential discoloration is a concern. For example, staining from tires can be prevented in an automobile showroom by placing a small mat under each tire. In hospitals or supermarkets, non-staining wheels should be specified for rolling equipment. All mats or rugs should also be non-staining.

Chemical Damage

All floorcovering materials are subject to damage or staining from certain chemicals. For applications where damage or staining may be a concern, a flooring product that offers the best resistance to the specific chemicals involved should be selected. A stain resistant chart for commonly used chemicals is available for all Forbo flooring products. Contact Forbo Technical Services for additional information.

Chemical spills should always be cleaned as soon as possible in order to prevent or minimize damage to the floor covering. The application of a floor finish may be helpful in preventing permanent stains if the finish is removed before the stain has penetrated to the flooring material. The floor finish can then be restored with additional coats of finish.

Spills

Spot clean spills as soon as possible. If necessary, rinse the area with clean cool water and allow the floor to dry thoroughly before permitting traffic. In addition to the possibility of damage or staining of the floor covering when spills occur, safety is also a concern. Make sure all floor care personnel are aware of the potential liability associated with spills, as well as the need for immediate attention.

General Floor Care Guidelines

Heel Marks

Black heel marks can be removed using a fine nylon pad moistened with a neutral pH detergent. Rinse thoroughly with a clean cloth and water. Allow to dry thoroughly before allowing traffic.

Cigarette Burns

A cigarette stubbed out on a Marmoleum[®] floor only chars the surface, and the resulting mark can normally be removed by using fine steel wool. After cleaning, an application of floor finish will protect the repaired spot. On a vinyl and textile floorcoverings, however, the heat of the cigarette will often melt the material and may leave a permanent mark on the floor.

Gum

Gum can be removed with a smooth, plastic putty knife and Forbo Adhesive Remover.

Physical Damage

All resilient floor covering materials are susceptible to certain types of physical damage. Stationary objects such as furniture should have adequate floor protectors. If the pressure exerted by an object on the floor covering exceeds the floor covering's rated capacity, permanent indentations may occur.

Care must be taken when moving furniture or other heavy objects. Do not slide heavy objects across the floor. When moving heavy objects, protecting the floor covering with sheets of Masonite or plywood may be required. Failure to use adequate precautions may result in scratches, cuts or other severe damage to the floorcovering.

Rolling equipment should have broad, flat wheels with rounded edges and without ridges. Wheel locks should be disengaged prior to moving equipment.

Disinfectants

Quaternary ammonium compounds are commonly used in hospital disinfection programs. Generally, when mixed and used properly, they will have little or no effect on the physical properties of most floorcoverings. Phenolic disinfectants are very caustic and pose a greater risk of damage to floorcoverings or other surfaces that they come into contact with. Potential damage includes discoloration or damage of the flooring surface, and leaving a slippery residue that may cause a hazardous condition. Where protective footwear is used, the chance of slipping is increased. If phenolic disinfectants are used, the floorcovering should be thoroughly rinsed with clean water after each application. After rinsing, the floor should be wet vacuumed. Following this recommendation will reduce the risk of slipperiness and damage to the floorcovering. Forbo's warranty does not cover damage caused by phenolic disinfectants.

Proper Use of Floor Care Chemicals

The improper use of high pH cleaners and strippers may damage resilient flooring products. Frequent treatment or inadequate rinsing may cause cracking, shrinking and/or discoloration. Marmoleum[®] should NEVER be cleaned or stripped with high pH chemicals because permanent damage may occur. Abrasive powders or cleansers should not be used on Forbo floorcoverings.

Floor Care Equipment

Keep all equipment clean and in good repair. Wash and rinse mops, pads, applicators, and brushes after each use. Use a dedicated mop for each procedure, i.e. one only used for cleaning, one only used for rinsing and another only used for finish application.

Floor Care Guidelines: Marmoleum[®] Sheet & Tile with Topshield2[™]

The Forbo Marmoleum[®] product range includes: Marmoleum[®] sheet, Marmoleum[®] Decibel sheet, Marmoleum[®] Composition Sheet (MCS), Walton sheet, Marmoleum[®] Dual Tile and Marmoleum[®] Composition Tile (MCT).

Forbo Marmoleum[®] and linoleum products feature Topshield2[™]. Marmoleum[®] with Topshield2[™] is the only resilient flooring with an occupancy-ready finish. This means that at the time of installation, cleaning with a neutral pH cleaning solution is all that is necessary. Lots of floors and finishes work well in theory, but only Marmoleum[®] with Topshield2[™] works well in the real world, where staining agents do not get removed in time, dirt and grit does not get cleaned up regularly, and your non-renewable finish gets permanent stains and scratches. Topshield2[™] has been designed to create a Marmoleum[®] that meets the demands of every day use and is even more resistant to dirt pick-up, less prone to wear and has improved resistance to scratches and stains, and thus creating a floor that demonstrates a lasting performance over time. Unlike PUR finishes that will show wear and dirt concentration encapsulated in micro scratches over time, Marmoleum[®] with Topshield2[™] can be refreshed and renewed, generating a new finish, turning Marmoleum[®] into what is probably the best performing resilient floor in the real world.

NOTE:

In order to allow the adhesive to dry and cure properly, wait a minimum of five days following the installation before conducting initial cleaning or other wet cleaning procedures. For installations over non-porous substrates, additional time may be necessary because the adhesive may take longer to dry and cure.

INITIAL CLEANING

For new installations exposed to normal construction soil and traffic.

- 1. Remove all surface soil, debris, sand and grit by sweeping, vacuuming or dust mopping.
- 2. Mix a neutral pH cleaning solution according to the label directions.
- IMPORTANT: The pH of the cleaner in solution must be between 6 8 pH. Please refer to the list at the end of this section for recommended products.
- 3. Apply the solution to the floor. Do NOT flood the floor. The solution can be applied with either a mop and bucket or an automatic scrubber.
- 4. Scrub the floor with a rotary scrubber or automatic scrubber using a 3M[™] Red Buffer Pad #5100 or equivalent. NOTE: For heavier soil loads, a 3M[™] TopLine Autoscrubber Pad #5000 or equivalent may be used.
- 5. If not using an automatic scrubber, pick up the scrubbing solution with a wet vacuum (preferred) or a squeegee and a mop.
- 6. Rinse the entire floor surface with a clean mop using clean, cool water. Pick up rinse water with wet vacuum or automatic scrubber.
- 7. Allow the floor to dry thoroughly before allowing traffic.

ROUTINE CLEANING

Cleaning performed a minimum of once a day, depending on the application, type of traffic and hours of operation.

- Stains or spills should be wiped or mopped up immediately with a damp mop using a neutral pH cleaning solution. Rinse the affected area with clean, cool water. Be sure to allow the floor to dry thoroughly before allowing traffic.
 IMPORTANT: The pH of the cleaner in solution must be between 6 8 pH. Please refer to the list at the end of this section for recommended products.
- 2. Remove all surface soil, debris, sand and grit by sweeping, vacuuming or dust mopping.
- Mix a neutral pH cleaning solution according to the label directions.
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- Apply the solution to the floor. Do NOT flood the floor. The solution can be applied with either a mop and bucket or an automatic scrubber with a 3M[™] Red Buffer Pad #5100 or equivalent.
- NOTE: For heavier soil loads, a 3M[™]TopLine Autoscrubber Pad #5000 or equivalent may be used.
- 5. Rinse the entire floor surface with a clean mop using clean, cool water. Pick up rinse water with wet vacuum or automatic scrubber.
- 6. Allow the floor to dry thoroughly before allowing traffic.

Floor Care Guidelines: Marmoleum[®] Sheet & Tile with Topshield2[™]

INTERIM CLEANING

As needed, depending on the application, type of traffic and hours of operation.

- 1. Remove all surface soil, debris, sand and grit by sweeping, vacuuming or dust mopping.
- Mix a neutral pH cleaning solution according to the label directions.
 IMPORTANT: The pH of the cleaner in solution must be between 6 8 pH. Please refer to the list at the end of this section for recommended products.
- 3. Apply the solution to the floor. Do NOT flood the floor. The solution should be applied with either a mop and bucket or an automatic scrubber.
- 4. Scrub the floor with a rotary scrubber or automatic scrubber using a 3M[™] Red Buffer Pad #5100 or equivalent for light soiling, a 3M[™] TopLine Autoscrubber Pad #5000 or equivalent for medium soiling or a 3M[™] Blue Cleaner Pad #5300 or equivalent for heavy soiling.
- 5. If not using an automatic scrubber, pick up the scrubbing solution with a wet vacuum (preferred) or a squeegee and a mop.
- 6. Rinse the entire floor surface with a clean mop using clean, cool water. Pick up rinse water with wet vacuum or automatic scrubber.
- 7. Allow the floor to dry thoroughly before allowing traffic.
- 8. If desired, one of the following procedures can be performed:
 - a. Spray buff the floor using a 175 RPM swing machine and a 3M[™] Red Buffer Pad #5100 or equivalent, followed by dust mopping.
 - b. Apply a mop-on restorer and burnish using a 3M[™] Eraser Pad #3600 or equivalent, followed by dust mopping.
 - c. Burnish / Dry Buff the floor using a 3M[™] Eraser Pad #3600 or equivalent, followed by dust mopping.
- 9. If the floor requires restoration cleaning procedures, contact Forbo Technical Services.

NOTE:

Weather, traffic and geographical location will influence the required frequency of this procedure. For example, in areas where there are large amounts of snow and chemicals used in the winter months it will likely be necessary to perform this procedure more frequently. In dry climates, or where there is less dirt traffic, it may not be necessary to perform this procedure as frequently.

CAUTION:

Marmoleum[®] with Topshield2[™] can be damaged by traditional wet stripping methods. If the above floor care recommendations are followed, no wet stripping will be necessary. If wet stripping methods are or have been used on the floor, contact Forbo Technical Services for additional information.

Forbo Marmoleum[®] should NEVER be subjected to traditional, aggressive wet stripping. These floors should be cared for by a staff trained to understand the following:

- Forbo Marmoleum[®] with Topshield2[™] is OCCUPANCY READY following installation.
- Removal of Topshield2[™] is NOT recommended.
- A regular floor care program, as described above, should be followed closely. Contact Forbo Technical Services with any
 additional questions.

RECOMMENDED FLOOR CARE PRODUCTS

Neutral pH Cleaners:	Spray Buffs:
Forbo Neutral pH Cleaner	Forbo Spray Buff
Pro-Link Level 7	Pro-Link Enhance
Spartan Damp Mop	Spartan Spray Buff
3M [™] Neutral Cleaner 3H	3M™ Top Line Pre-Burnish Conditioner
Diversey Stride	Diversey Snapback

Mop on Restorers: Forbo Mop on Restorer Pro-Link Optimum Response Spartan SunSwept 3M™ Top Line Pre-Burnish Conditioner Diversey Snapback UHS

Forbo Flooring Systems	Pro-Link	Spartan	3M™	Diversey
+800 842 7839	+800 745 4657	+800 537 8990	+800 852 9722	+800 558 2332
www.forboflooringNA.com	www.prolinkhq.com	www.spartanchemical.com	www.3m.com/building	www.diversey.com

Floor Care Guidelines: Eternal Sheet Vinyl

The Forbo Eternal product range includes: Eternal Classic & Marble, Eternal Wood, and Eternal Decibel.

Forbo Eternal products are a homogeneous sheet vinyl that have lacquered finish wear layer that is transparent, allowing for easy cleaning and provides a natural appearance to the floorcovering. This finish ensures a maximal wear resistance and maintains the design of the floor. A non woven, fully impregnated, glass fleece layer functions as the backbone of the floor, ensuring dimensional stability. Adding to stability and the high quality standard of Eternal is the optimized calendared backing, a firm but flexible and embossed layer to allow easy installation. The backing layer, which is a substantial part of the construction, contains 40% recycled content.

NOTE:

In order to allow the adhesive to dry and cure properly, wait a minimum of five days following the installation before conducting initial cleaning or other wet cleaning procedures. For installations over non-porous substrates, additional time may be necessary because the adhesive may take longer to dry and cure.

INITIAL CLEANING

For new installations exposed to normal construction soil and traffic.

- 1. Remove all surface soil, debris, sand and grit by sweeping, vacuuming or dust mopping.
- Mix a neutral pH cleaning solution according to the label directions.
 IMPORTANT: The pH of the cleaner in solution must be between 6 8 pH. Please refer to the list at the end of this section for recommended products.
- 3. Apply the solution to the floor. Do NOT flood the floor. The solution can be applied with either a mop and bucket or an automatic scrubber.
- 4. Scrub the floor with a rotary scrubber or automatic scrubber using a 3M[™] Red Buffer Pad #5100 or equivalent. NOTE: For heavier soil loads, a 3M[™] TopLine Autoscrubber Pad #5000 or equivalent may be used.
- 5. If not using an automatic scrubber, pick up the scrubbing solution with a wet vacuum (preferred) or a squeegee and a mop.
- 6. Rinse the entire floor surface with a clean mop using clean, cool water. Pick up rinse water with wet vacuum or automatic scrubber.
- 7. Allow the floor to dry thoroughly before allowing traffic.

ROUTINE CLEANING

Cleaning performed a minimum of once a day, depending on the application, type of traffic and hours of operation.

- Stains or spills should be wiped or mopped up immediately with a damp mop using a neutral pH cleaning solution. Rinse the affected area with clean, cool water. Be sure to allow the floor to dry thoroughly before allowing traffic.
 IMPORTANT: The pH of the cleaner in solution must be between 6 8 pH. Please refer to the list at the end of this section for recommended products.
- 2. Remove all surface soil, debris, sand and grit by sweeping, vacuuming or dust mopping.
- Mix a neutral pH cleaning solution according to the label directions.
 IMPORTANT: The pH of the cleaner in solution must be between 6 8 pH. Please refer to the list at the end of this section for recommended products.
- Apply the solution to the floor. Do NOT flood the floor. The solution can be applied with either a mop and bucket or an automatic scrubber with a 3M[™] Red Buffer Pad #5100 or equivalent.
 NOTE: For heavier soil loads, a 3M[™] TopLine Autoscrubber Pad #5000 or equivalent may be used.
- 5. Rinse the entire floor surface with a clean mop using clean, cool water. Pick up rinse water with wet vacuum or automatic scrubber.
- 6. Allow the floor to dry thoroughly before allowing traffic.

Floor Care Guidelines: Eternal Sheet Vinyl

INTERIM CLEANING

As needed, depending on the application, type of traffic and hours of operation.

- 1. Remove all surface soil, debris, sand and grit by sweeping, vacuuming or dust mopping.
- Mix a neutral pH cleaning solution according to the label directions.
 IMPORTANT: The pH of the cleaner in solution must be between 6 8 pH. Please refer to the list at the end of this
- section for recommended products.3. Apply the solution to the floor. Do NOT flood the floor. The solution should be applied with either a mop and bucket or an automatic scrubber.
- 4. Scrub the floor with a rotary scrubber or automatic scrubber using a 3M[™] Red Buffer Pad #5100 or equivalent for light soiling, a 3M[™] TopLine Autoscrubber Pad #5000 or equivalent for medium soiling or a 3M[™] Blue Cleaner Pad #5300 or equivalent for heavy soiling.
- 5. If not using an automatic scrubber, pick up the scrubbing solution with a wet vacuum (preferred) or a squeegee and a mop.
- 6. Rinse the entire floor surface with a clean mop using clean, cool water. Pick up rinse water with wet vacuum or automatic scrubber.
- 7. Allow the floor to dry thoroughly before allowing traffic.
- 8. If desired, one of the following procedures can be performed:
 - a. Spray buff the floor using a 175 RPM swing machine and a 3M[™] Red Buffer Pad #5100 or equivalent, followed by dust mopping.
 - b. Apply a mop-on restorer and burnish using a 3M[™] Eraser Pad #3600 or equivalent, followed by dust mopping.
 - c. Burnish / Dry Buff the floor using a 3M[™] Eraser Pad #3600 or equivalent, followed by dust mopping.
- 9. If the floor requires restoration cleaning procedures, contact Forbo Technical Services.

NOTE:

Weather, traffic, and geographical location will influence the required frequency of this procedure. For example, in areas where there are large amounts of snow and chemicals used in the winter months it will likely be necessary to perform this procedure more frequently. In dry climates, or where there is less dirt traffic, it may not be necessary to perform this procedure as frequently.

RECOMMENDED FLOOR CARE PRODUCTS

<u>Neutral pH Cleaners:</u>	<u>Spray Buffs:</u>	<u>Mop on Restorers:</u>
Forbo Neutral pH Cleaner	Forbo Spray Buff	Forbo Mop on Restorer
Pro-Link Level 7	Pro-Link Enhance	Pro-Link Optimum Response
Spartan Damp Mop	Spartan Spray Buff	Spartan SunSwept
3M™ Neutral Cleaner 3H	3M™ Top Line Pre-Burnish Conditioner	3M™ Top Line Pre-Burnish Conditioner
Diversey Stride	Diversey Snapback	Diversey Snapback UHS

Forbo Flooring Systems	Pro-Link	Spartan	3M™	Diversey
+800 842 7839	+800 745 4657	+800 537 8990	+800 852 9722	+800 558 2332
www.forboflooringNA.com	www.prolinkhq.com	www.spartanchemical.com	www.3m.com/building	<u>www.diversey.com</u>

Floor Care Guidelines: Eternal Step SR Sheet Vinyl

The Forbo Eternal Step SR product range includes: Eternal Step SR Smooth and Eternal Step SR Studded.

Forbo Eternal products are a homogeneous sheet vinyl that have lacquered finish wear layer that is transparent. This finish ensures a maximal wear resistance and maintains the design of the floor. The PVC wear layer also contains aluminum oxide and carborundum chips for durable slip resistance. A non woven, fully impregnated, glass fleece layer functions as the backbone of the floor, ensuring dimensional stability. Adding to stability and the high quality standard of Eternal is the optimized calendared backing, a firm but flexible and embossed layer to allow easy installation. The backing layer, which is a substantial part of the construction, contains 40% recycled content.

NOTE:

In order to allow the adhesive to dry and cure properly, wait a minimum of five days following the installation before conducting initial cleaning or other wet cleaning procedures. For installations over non-porous substrates, additional time may be necessary because the adhesive may take longer to dry and cure.

Because of the abrasive qualities of this flooring, traditional mops and floor pads will have a very short life and are not recommended for use. Soft bristled brushes and continuous filament microfiber mops will provide better success when cleaning this floor.

INITIAL CLEANING

For new installations exposed to normal construction soil and traffic.

- 1. Remove all surface soil, debris, sand and grit by sweeping, vacuuming or dust mopping.
- Mix a hydrogen peroxide cleaning solution according to the label directions.
 IMPORTANT: The pH of the hydrogen peroxide cleaner in solution must be between 4 7 pH. Please refer to the list at the end of this section for recommended products.
- 3. Apply the solution to the floor. Do NOT flood the floor. The solution can be applied with either a continuous filament microfiber mop and bucket or an automatic scrubber.
- 4. Scrub the floor with a rotary scrubber or automatic scrubber using a soft bristled brush.
- 5. If not using an automatic scrubber, pick up the scrubbing solution with a wet vacuum (preferred) or a continuous filament microfiber mop.
- 6. Rinse the entire floor surface with a clean continuous filament microfiber mop using clean, cool water. Pick up rinse water with wet vacuum or automatic scrubber.
- 7. Allow the floor to dry thoroughly before allowing traffic.

ROUTINE CLEANING

Cleaning performed a minimum of once a day, depending on the application, type of traffic and hours of operation.

- Stains or spills should be wiped or mopped up immediately with a damp mop using a neutral pH cleaning solution. Rinse the affected area with clean, cool water. Be sure to allow the floor to dry thoroughly before allowing traffic.
 IMPORTANT: The pH of the neutral cleaner in solution must be between 6 8 pH. Please refer to the list at the end of this section for recommended products.
- 2. Remove all surface soil, debris, sand and grit by sweeping, vacuuming or dust mopping.
- 3. Mix a hydrogen peroxide cleaning solution according to the label directions.
- IMPORTANT: The pH of the hydrogen peroxide cleaner in solution must be between 4 7 pH. Please refer to the list at the end of this section for recommended products.
- 4. Apply the solution to the floor. Do NOT flood the floor. The solution can be applied with either a continuous filament microfiber mop and bucket or automatic scrubber.
- 5. Rinse the entire floor surface with a clean continuous filament microfiber mop using clean, cool water. Pick up rinse water with wet vacuum or automatic scrubber.
- 6. Allow the floor to dry thoroughly before allowing traffic.

Floor Care Guidelines: Eternal Step SR Sheet Vinyl

INTERIM CLEANING

As needed, depending on the application, type of traffic and hours of operation.

- 1. Remove all surface soil, debris, sand and grit by sweeping, vacuuming or dust mopping.
- Mix a hydrogen peroxide cleaning solution according to the label directions.
 IMPORTANT: The pH of the hydrogen peroxide cleaner in solution must be between 4 7 pH. Please refer to the list at the end of this section for recommended products.
- 3. Apply the solution to the floor. Do NOT flood the floor. The solution should be applied with either a continuous filament microfiber mop and bucket or automatic scrubber.
- 4. Allow the solution to remain on the floor for 5 10 minutes. Scrub the floor using a rotary electric scrubber or an automatic scrubber equipped with a soft bristled brush. For commercial kitchen applications, a general purpose cleaner may be necessary to achieve the best results.

IMPORTANT: The pH of the general purpose cleaner in solution must be between 8 – 10.4 pH. Please refer to the list at the end of this section for recommended products.

- 5. If not using an automatic scrubber, pick up the scrubbing solution with a wet vacuum (preferred) or a continuous filament microfiber mop.
- 6. Rinse the entire floor surface with a clean continuous filament microfiber mop using clean, cool water. Pick up rinse water with wet vacuum or automatic scrubber.
- 7. Allow the floor to dry thoroughly before allowing traffic.
- 8. If the floor requires restoration cleaning procedures, contact Forbo Technical Services.

NOTE:

Weather, traffic and geographical location will influence the required frequency of this procedure. For example, in areas where there are large amounts of snow and chemicals used in the winter months it will likely be necessary to perform this procedure more frequently. In dry climates, or where there is less dirt traffic, it may not be necessary to perform this procedure as frequently.

RECOMMENDED FLOOR CARE PRODUCTS

Hydrogen Peroxide Cleaners:	<u>Neutral pH Cleaners:</u>	General Purpose Cleaners:
Forbo Hydrogen Peroxide Cleaner	Forbo Neutral pH Cleaner	Forbo Heavy Duty Cleaner
Pro-Link TransOxy	Pro-Link Level 7	Pro-Link Synthetic Floor HD Cleaner
Spartan Clean by Peroxy	Spartan Damp Mop	Spartan Industrial Pathmaker
3M™ Peroxide Cleaner 34L	3M™ Neutral Cleaner 3H	3M [™] General Purpose Cleaner/
		Concentrate 8H
Diversey Alpha HP	Diversey Stride	Diversey Profi
		Diversey GP Forward
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Forbo Flooring Systems	Pro-Link	Spartan	3M™	Diversey
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www.forboflooringNA.com	www.prolinkhq.com	www.spartanchemical.com	www.3m.com/building	www.diversey.com

Floor Care Guidelines: ColoRex® SD/EC Vinyl Tile

Forbo ColoRex[®] SD/EC is comprised of conductive coated chips, which are pressed and formed into a solid homogeneous vinyl block, stable in size and dimension, and then sliced to assure a highly flexible tile of dense construction. ColoRex[®] SD/EC is dimensionally stable and extremely hard wearing.

The following guidelines are for ESD Control applications. For non-ESD Control applications, follow the Floor Care Guidelines for Forbo Eternal Sheet Vinyl.

NOTE:

In order to allow the adhesive to dry and cure properly, wait a minimum of five days following the installation before conducting initial cleaning or other wet cleaning procedures. For installations over non-porous substrates, additional time may be necessary because the adhesive may take longer to dry and cure.

INITIAL CLEANING

For new installations exposed to normal construction soil and traffic.

- 1. Remove all surface soil, debris, sand and grit by sweeping, vacuuming or dust mopping.
- Mix a neutral pH cleaning solution according to the label directions.
 IMPORTANT: The pH of the cleaner in solution must be between 6 8 pH. Please refer to the list at the end of this section for recommended products.
- 3. Apply the solution to the floor. Do NOT flood the floor. The solution can be applied with either a mop and bucket or an automatic scrubber.
- 4. Scrub the floor with a rotary scrubber or automatic scrubber using a 3M[™] Red Buffer Pad #5100 or equivalent. NOTE: For heavier soil loads, a 3M[™] TopLine Autoscrubber Pad #5000 or equivalent may be used.
- 5. If not using an automatic scrubber, pick up the scrubbing solution with a wet vacuum (preferred) or a squeegee and a mop.
- 6. Rinse the entire floor surface with a clean mop using clean, cool water. Pick up rinse water with wet vacuum or automatic scrubber.
- 7. Allow the floor to dry thoroughly before allowing traffic.
- 8. If desired, a satin gloss may be obtained by burnishing using a 3M[™] Eraser Pad #3600 or equivalent, followed by dust mopping.

ROUTINE CLEANING

Cleaning performed a minimum of once a day, depending on the application, type of traffic and hours of operation.

- Stains or spills should be wiped or mopped up immediately with a damp mop using a neutral pH cleaning solution. Rinse the affected area with clean, cool water. Be sure to allow the floor to dry thoroughly before allowing traffic.
 IMPORTANT: The pH of the cleaner in solution must be between 6 8 pH. Please refer to the list at the end of this section for recommended products.
- 2. Remove all surface soil, debris, sand and grit by sweeping, vacuuming or dust mopping.
- Mix a neutral pH cleaning solution according to the label directions.
 IMPORTANT: The pH of the cleaner in solution must be between 6 8 pH. Please refer to the list at the end of this section for recommended products.
- Apply the solution to the floor. Do NOT flood the floor. The solution can be applied with either a mop and bucket or an automatic scrubber with a 3M[™] Red Buffer Pad #5100 or equivalent.
 NOTE: For heavier soil loads, a 3M[™] TopLine Autoscrubber Pad #5000 or equivalent may be used.
- 5. Rinse the entire floor surface with a clean mop using clean, cool water. Pick up rinse water with wet vacuum or automatic scrubber.
- 6. Allow the floor to dry thoroughly before allowing traffic.

Floor Care Guidelines: ColoRex® SD/EC Vinyl Tile

INTERIM CLEANING

As needed, depending on the application, type of traffic and hours of operation.

- 1. Remove all surface soil, debris, sand and grit by sweeping, vacuuming or dust mopping.
- 2. Mix a neutral pH or general purpose cleaning solution according to the label directions.
- IMPORTANT: The pH of the neutral pH cleaner in solution must be between 6 8 pH. The pH of the general purpose cleaner in solution must be between 8 – 10.4 pH. Please refer to the list at the end of this section for recommended products.
- 3. Apply the solution to the floor. Do NOT flood the floor. The solution should be applied with either a mop and bucket or an automatic scrubber.
- 4. Scrub the floor with a rotary scrubber or automatic scrubber using a 3M[™] Red Buffer Pad #5100 or equivalent for light soiling, a 3M[™] TopLine Autoscrubber Pad #5000 or equivalent for medium soiling or a 3M[™] Blue Cleaner Pad #5300 or equivalent for heavy soiling.
- 5. If not using an automatic scrubber, pick up the scrubbing solution with a wet vacuum (preferred) or a squeegee and a mop.
- 6. Rinse the entire floor surface with a clean mop using clean, cool water. Pick up rinse water with wet vacuum or automatic scrubber.
- 7. Allow the floor to dry thoroughly before allowing traffic.
- 8. If desired, a satin gloss may be obtained by burnishing using a 3M[™] Eraser Pad #3600 or equivalent, followed by dust mopping. It is NOT recommended to apply spray buff or finish to ColoRex[®] SD/EC when used for ESD applications.

NOTE:

Weather, traffic and geographical location will influence the required frequency of this procedure. For example, in areas where there are large amounts of snow and chemicals used in the winter months it will likely be necessary to perform this procedure more frequently. In dry climates, or where there is less dirt traffic, it may not be necessary to perform this procedure as frequently.

RECOMMENDED FLOOR CARE PRODUCTS

<u>Neutral pH Cleaners:</u>	General Purpose Cleaners:
Forbo Neutral pH Cleaner	Forbo Heavy Duty Cleaner
Pro-Link Level 7	Pro-Link Synthetic Floor HD Cleaner
Spartan Damp Mop	Spartan Industrial Pathmaker
3M™ Neutral Cleaner 3H	3M [™] General Purpose Cleaner/Concentrate 8H
Diversey Stride	Diversey Profi
	Diversey GP Forward

Forbo Flooring Systems	Pro-Link	Spartan	3M™	Diversey
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Floor Care Guidelines: Flotex[®] Sheet & Tile

The unique construction of Forbo Flotex[®] sheet and tile flooring is what allows it to release soiling like no other textile flooring can. Unlike the looped and twisted fibers of a conventional carpet pile, the smooth straight fibers of Flotex[®] do not trap particles of soil, allowing them to be removed without difficulty during cleaning. Most spills can be cleaned with plain water. This document will provide you with guidelines that, if followed, will keep your flooring looking beautiful and clean for many years to come

GENERAL GUIDELINES

By defining the traffic areas in a facility, a better determination can be made regarding an appropriate floor care plan. Single foot traffic is defined as "a pedestrian walking across a measured section of flooring, one time." Traffic areas can be defined as:

High Traffic Areas [800,000-2,000,000 traffics] - Outside entrances, hallways, break rooms, cafeterias, corridors, elevator lobbies, stairways, main aisles, waiting areas, etc. and ANY AREA CONSIDERED ESSENTIAL TO THE PUBLIC IMAGE OF THE COMPANY. Medium Traffic Areas [400,000-800,000 traffics] - Secondary aisles, research areas, conference rooms, classrooms, atriums, etc. Light Traffic Areas [400,000 traffics] - Offices, cubicles, storage rooms, executive areas, etc.

- Flotex[®] requires regular care to keep it clean and prevent the accumulation of dirt and soil. Proper cleaning, such as daily vacuuming and routine hot water extraction, can reduce contamination to virtually non-existent levels.
- Use a high quality entrance system, such as Coral[®], at all entrances.
- Identify sources of soiling and react to spills immediately, before they dry.
- Be certain not to leave any detergent residue when cleaning. Any chemicals applied to the flooring must be removed. No more
 than 1 oz. per gallon should be used. The most common problem when caring for Flotex[®] is the over use of cleaning chemicals.
 The build up of chemicals and cleaners will de-luster the Flotex[®] fibers and leave a dull appearance. Chemical buildup also
 attracts dirt faster and speeds soiling.

NOTE:

In order to allow the adhesive to dry and cure properly, wait a minimum of five days following the installation before conducting initial cleaning or other wet cleaning procedures. For installations over non-porous substrates, additional time may be necessary because the adhesive may take longer to dry and cure.

INITIAL CLEANING

For new installations exposed to normal construction soil and traffic.

- Remove all surface soil, debris, sand and grit by vacuuming using a dual motor upright vacuum with a rotating brush, such as Tennant V-HDU-14, Clarke CarpetMaster 215 or equivalent. The brush should be approximately 1/8" below the vacuum cleaner casing to ensure proper agitation. Make several passes with the vacuum cleaner to ensure that all loose dirt is removed. Vacuum action should be fast forward and slow backward.
- 2. Spot clean if necessary by using the "Scrape, Scrub and Rinse" procedures.

SPOTTING PROCEDURES: "SCRAPE, SCRUB, AND RINSE"

- 1. Scrape up spills using a spatula or blunt edged scraper and wipe excess soil onto a cloth.
- 2. Apply a liberal amount of water to the spot.
- 3. Using a spatula, scrape the water and the remains of the spill into a paper towel or cloth. Keep scraping with the spatula until the spill is completely removed.
- 4. If the spill or stain is not completely removed, apply a general purpose spotter cleaner to a white cotton cloth and rub it into the spot. Do not be afraid to use aggressive scrubbing to remove set-in spills. A soft wire brush can be used to remove scuff marks or other set in spills.

IMPORTANT: Please refer to the list at the end of this section for recommended general purpose spotters.

- 5. Using a spatula, scrape the water, any cleaner and the remains of the spill into a paper towel or cloth. Keep scraping with the spatula until the spill or stain is completely removed.
- 6. Rinse the area thoroughly with water to ensure that any cleaning solution is completely removed.
- 7. A spotter machine, such as Tennant EX-SPOT-2 Spotter, Clarke BextSpot or equivalent, may be used to perform rinsing throughout the spot cleaning process.
- 8. Do not allow traffic on areas that were spot cleaned until the Flotex[®] has completely dried.

Floor Care Guidelines: Flotex[®] Sheet & Tile

INTERIM CLEANING

As needed, depending on the application, type of traffic and hours of operation.

- Remove all surface soil, debris, sand and grit by vacuuming using a dual motor upright vacuum with a rotating brush, such as Tennant V-HDU-14, Clarke CarpetMaster 215 or equivalent. The brush should be approximately 1/8" below the vacuum cleaner casing to ensure proper agitation. Make several passes with the vacuum cleaner to ensure that all loose dirt is removed. Vacuum action should be fast forward and slow backward.
- 2. Spot clean if necessary by using the "Scrape, Scrub and Rinse" procedures.
- 3. Use a self-contained portable extraction machine, such as Tennant 1610 Extractor, Clarke Clean Track S16 or equivalent, preferably with counter-rotating brushes. The machine should be filled with the hottest water available at the facility, not to exceed 140°.
- 4. Extract thoroughly, using water only. Set the machine to its lowest setting to ensure maximum agitation and contact with the fibers.
- 5. Follow each wet pass with a minimum of two dry passes.
- 6. Use snail fans or air movers for the final drying of the floor surface. When possible, allow a minimum of three hours drying time after the last extraction before traffic is allowed on the floor surface again.

RESTORATION CLEANING

As needed when periodic cleaning procedures no longer produce the desired result.

- Remove all surface soil, debris, sand and grit by vacuuming using a dual motor upright vacuum with a rotating brush, such as Tennant V-HDU-14, Clarke CarpetMaster 215 or equivalent. The brush should be approximately 1/8" below the vacuum cleaner casing to ensure proper agitation. Make several passes with the vacuum cleaner to ensure that all loose dirt is removed. Vacuum action should be fast forward and slow backward.
- 2. Spot clean if necessary by using the "Scrape, Scrub and Rinse" procedures.
- 3. Mix a hydrogen peroxide cleaning solution according to the label directions.
- IMPORTANT: The pH of the hydrogen peroxide cleaner in solution must be between 4 7 pH. Please refer to the list at the end of this section for recommended products.
- 4. Apply the solution to the floor either with a rotary scrubbing machine with tank or pump up sprayer.
- Scrub the entire area using a standard speed rotary scrubbing machine and a flagged-bristle brush such as Malish nylon carpet shampoo brush #812915 or equivalent.
 NOTE: These types of brushes typically need to be broken in prior to use. Follow the manufacturers' recommendations for this process.
- 6. Use a self-contained portable extraction machine, such as Tennant 1610 Extractor, Clarke Clean Track S16 or equivalent, preferably with counter-rotating brushes. The machine should be filled with the hottest water available at the facility, not to exceed 140°.
- 7. Extract thoroughly, using water only. Set the machine to its lowest setting to ensure maximum agitation and contact with the fibers.
- 8. Follow each wet pass with a minimum of two dry passes.
- 9. Use snail fans or air movers for the final drying of the floor surface. When possible, allow a minimum of three hours drying time after the last extraction before traffic is allowed on the floor surface again.

RECOMMENDED FLOOR CARE PRODUCTS

<u>Hydrogen Peroxide Cleaners:</u>	General Purpose Cleaners:
Forbo Hydrogen Peroxide Cleaner	Forbo Adhesive Remover
Pro-Link TransOxy	Pro-Link General Purpose Spotter
Spartan Clean by Peroxy	Contempo [®] H2O2 Spotting Solution
3M™ Peroxide Cleaner 34L	
Diversey Alpha HP	Diversey General Purpose Spot Cleaner

Forbo Flooring Systems	Pro-Link	Spartan	3M™	Diversey
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Floor Care Guidelines: Coral® Entrance Systems

The Forbo Coral® product range includes: Coral® ® Brush Pure / Blend, Coral® Classic, Coral® Duo and Coral® Grip.

Coral[®] Entrance Systems offer an exceptionally versatile range of "clean-off" entrance system products, each performing a specific cleaning function. Each Coral[®] range has been designed for all types of entrances. Coral[®] Brush Pure / Blend simultaneously absorbs moisture and removes dry soiling. Coral[®] Classic has the capacity to absorb almost 50% of the foot borne moisture along with special scraping monofilament yarns which actively scrape dirt off the soles of shoes. Coral[®] Duo retains 10% more dirt in the first few meters than any other textile entrance flooring system, combining Coral[®] Brush and Coral[®] Classic in design. Coral[®] Grip has been designed to be installed outside. It is a versatile non-woven mat with granulated PVC chips helps to create a slip resistant surface.

NOTE:

In order to allow the adhesive to dry and cure properly, wait a minimum of five days following the installation before conducting initial cleaning or other wet cleaning procedures. For installations over non-porous substrates, additional time may be necessary because the adhesive may take longer to dry and cure.

INITIAL CLEANING

For new installations exposed to normal construction soil and traffic.

- Remove all surface soil, debris, sand and grit by vacuuming using a dual motor upright vacuum with a rotating brush, such as Tennant V-HDU-14, Clarke CarpetMaster 215 or equivalent. The brush should be approximately 1/8" below the vacuum cleaner casing to ensure proper agitation. Make several passes with the vacuum cleaner to ensure that all loose dirt is removed. Vacuum action should be fast forward and slow backward.
- 2. Spot clean if necessary by using the "Scrape, Scrub and Rinse" procedures.

SPOTTING PROCEDURES: "SCRAPE, SCRUB, AND RINSE"

- 1. Scrape up spills using a spatula or blunt edged scraper and wipe excess soil onto a cloth.
- 2. Apply a liberal amount of water to the spot.
- 3. Using a spatula, scrape the water and the remains of the spill into a paper towel or cloth. Keep scraping with the spatula until the spill is completely removed.
- 4. If the spill or stain is not completely removed, apply a general purpose spotter cleaner to a white cotton cloth and rub it into the spot. Do not be afraid to use aggressive scrubbing to remove set-in spills. A soft wire brush can be used to remove scuff marks or other set in spills.

IMPORTANT: Please refer to the list at the end of this section for recommended general purpose spotters.

- 5. Using a spatula, scrape the water, any cleaner and the remains of the spill into a paper towel or cloth. Keep scraping with the spatula until the spill or stain is completely removed.
- 6. Rinse the area thoroughly with water to ensure that any cleaning solution is completely removed.
- 7. A spotter machine, such as Tennant EX-SPOT-2 Spotter, Clarke BextSpot or equivalent, may be used to perform rinsing throughout the spot cleaning process.
- 8. Do not allow traffic on areas that were spot cleaned until the Coral[®] has completely dried.

INTERIM CLEANING

As needed, depending on the application, type of traffic and hours of operation.

- Remove all surface soil, debris, sand and grit by vacuuming using a dual motor upright vacuum with a rotating brush, such as Tennant V-HDU-14, Clarke CarpetMaster 215 or equivalent. The brush should be approximately 1/8" below the vacuum cleaner casing to ensure proper agitation. Make several passes with the vacuum cleaner to ensure that all loose dirt is removed. Vacuum action should be fast forward and slow backward.
- 2. Spot clean if necessary by using the "Scrape, Scrub and Rinse" procedures.
- 3. Use a self-contained portable extraction machine, such as Tennant 1610 Extractor, Clarke Clean Track S16 or equivalent, preferably with counter-rotating brushes. The machine should be filled with the hottest water available at the facility, not to exceed 140°.
- 4. Extract thoroughly, using water only. Set the machine to its lowest setting to ensure maximum agitation and contact with the fibers.
- 5. Follow each wet pass with a minimum of two dry passes.
- 6. Use snail fans or air movers for the final drying of the floor surface. When possible, allow a minimum of three hours drying time after the last extraction before traffic is allowed on the floor surface again.

Floor Care Guidelines: Coral® Entrance Systems

RESTORATION CLEANING

As needed when periodic cleaning procedures no longer produce the desired result.

- Remove all surface soil, debris, sand and grit by vacuuming using a dual motor upright vacuum with a rotating brush, such as Tennant V-HDU-14, Clarke CarpetMaster 215 or equivalent. The brush should be approximately 1/8" below the vacuum cleaner casing to ensure proper agitation. Make several passes with the vacuum cleaner to ensure that all loose dirt is removed. Vacuum action should be fast forward and slow backward.
- 2. Spot clean if necessary by using the "Scrape, Scrub and Rinse" procedures.
- 3. Mix a hydrogen peroxide cleaning solution according to the label directions.
- IMPORTANT: The pH of the hydrogen peroxide cleaner in solution must be between 4 7 pH. Please refer to the list at the end of this section for recommended products.
- 4. Apply the solution to the floor either with a rotary scrubbing machine with tank or pump up sprayer.
- 5. Scrub the entire area using a standard speed rotary scrubbing machine and a flagged-bristle brush such as Malish nylon carpet shampoo brush #812915 or equivalent.

NOTE: These types of brushes typically need to be broken in prior to use. Follow the manufacturers' recommendations for this process.

- 6. Use a self-contained portable extraction machine, such as Tennant 1610 Extractor, Clarke Clean Track S16 or equivalent, preferably with counter-rotating brushes. The machine should be filled with the hottest water available at the facility, not to exceed 140°.
- 7. Extract thoroughly, using water only. Set the machine to its lowest setting to ensure maximum agitation and contact with the fibers.
- Follow each wet pass with a minimum of two dry passes.
 Note: Be certain not to leave any detergent residue when cleaning. Any chemicals applied to the flooring must be removed.
 No more than 1 oz. per gallon should be used. The most common problem when caring for Coral[®] is the over use of cleaning chemicals. The build up of chemicals and cleaners will de-luster the Coral[®] fibers and leave a dull appearance. Chemical buildup also attracts dirt faster and speeds soiling.
- 9. Use snail fans or air movers for the final drying of the floor surface. When possible, allow a minimum of three hours drying time after the last extraction before traffic is allowed on the floor surface again.

NOTE:

Because Coral[®] Grip can be installed outside, it is recommended that periodically it is power-washed or hosed off to remove any dirt that may be trapped inside.

RECOMMENDED FLOOR CARE PRODUCTS

Hydrogen Peroxide Cleaners:	General Purpose Cleaners:
Forbo Hydrogen Peroxide Cleaner	Forbo Adhesive Remover
Pro-Link TransOxy	Pro-Link General Purpose Spotter
Spartan Clean by Peroxy	Contempo [®] H2O2 Spotting Solution
3M™ Peroxide Cleaner 34L	
Diversey Alpha HP	Diversey General Purpose Spot Cleaner

Forbo Flooring Systems	Pro-Link	Spartan	3M™	Diversey
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Floor Care Guidelines: Nuway® Entrance Systems

The Forbo Nuway® product range includes: Nuway® Tuftiguard, Nuway® Tuftiguard HD, and Nuway® Grid.

Nuway[®] engineered entrance flooring is used outside doorways and immediately inside heavily trafficked entrance areas to scrape off the worst of soil tracked in on the soles of shoes or wheeled vehicles. These rigid engineered mats, constructed of profiles, scrapers and insert materials, are made to the customer's individual specifications.

NOTE:

During the winter months, remove the foot grills and clean the frames and mat wells once per week. During other seasons, cleaning once per month should be sufficient. Each time the frames and pans are cleaned, make sure there is no residue or debris remaining under the grills. This will avoid warping of the foot grills because of an uneven substrate and prevent long term problems. Never use chemicals containing chlorinated hydrocarbons and bleaching/oxidizing agents on Nuway[®] grills.

INITIAL / ROUTINE CLEANING

It is essential to remove dry soiling at least once a day. The most effective method is to use vacuum cleaners that incorporate a mechanically driven rotating brush or suction-only machines with a rotating brush attachment.

- 1. Use a stiff brush to loosen and remove dry particles and fine soiling from the surface of the product.
- Vacuum using a dual motor upright vacuum with a rotating brush, such as Tennant V-HDU-14, Clarke CarpetMaster 215 or equivalent to collect and remove loose soiling.
 NOTE: It is important to make sure that the vacuum head has sufficient depth to penetrate the different surfaces in order to
- remove soil from the wiper strips and the aluminum/PVC components. 3. For dry spills, brush into a receptacle or vacuum to remove. For small wet spills, use a clean cloth or other absorbent material
- to soak up as much of the spill as possible. For large wet spills, use a wet/dry pick-up vacuum or a hot water extraction cleaning machine to remove dirt.
- 4. For chewing gum removal, ideally remove before it becomes hardened and compacted into the matting surface. Proprietary gum removal gels are readily available to assist removal. The Nuway[®] components are able to withstand regular gum removal without affecting performance or structural integrity.

NOTE: In removing chewing gum, the area affected will appear cleaner than the surrounding matting. The gum removal gel requires the use of a spatula; care should be taken not to damage the surface by using excessive force.

If vacuuming doesn't effectively remove the dry soiling, check for these causes:

- Worn brushes or the wrong brush height it is essential that the brush makes contact with the pile of the entry flooring.
- Brush not rotating properly a loose drive belt will weaken the power of the brushing.
- Blocked or obstructed airways affecting suction power.
- Dust bag/collector in need of emptying.

INTERIM / RESTORATION CLEANING

As needed when periodic cleaning procedures no longer produce the desired result. Periodically, more thorough cleaning of the grills in place can be conducted if needed. Dry extraction or solution brush extraction may be used. Before beginning the extraction process, use a stiff brush to loosen and remove dry particles and fine soiling from the surface of the product and then use a vacuum to collect and remove loose soiling.

- 1. Dry extraction uses a moist compound that is impregnated with cleaning chemicals which can be applied using a stiff brush or mechanically driven applicator with counter rotating brushes. The compound should be left to absorb the soil for a short period and then removed by vacuuming.
- 2. Solution brush extraction uses machines with counter rotating brushes which introduce a cleaning solution to the product surface and returns the soiled solution straight to the machine.
- NOTE: It is important to ensure surface moisture is extracted from the products' surface to avoid premature soiling.
- 3. Periodically lift up the Nuway[®] matting modules to allow thorough cleaning. This also allows for inspection of the mat well to check on the condition as well as facilitating reversal of modules if appropriate.
- 4. Vacuum the mat surface to remove soil prior to lifting up modules. Use a large screwdriver to carefully lift individual matting modules from the mat well.
- 5. Clean out soil filtrated to the base of the mat well and frame. Depending on the degree of soiling, clean the matting using the above methods or, in excessive soil situations, hot water extraction or jet wash methods may be more appropriate. **NOTE:** It is important that the modules are fully dry before replacing.

For additional information, contact Forbo Flooring Systems at +800 842 7839 or visit www.forboflooringNA.com.



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Forbo Flooring Systems North American Headquarters 8 Maplewood Drive Humboldt Industrial Park Hazleton, PA 18202 1-800-842-7839 570-459-0771 Fax: 570-450-0258 www.forboflooringNA.com www.floorcostcomparison.com email: info.NA@forbo.com Forbo Flooring Systems Canada Office 111 Westmore Drive Toronto, ON M9V 3Y6 1-800-268-8108 416-745-4200 Fax: 416-745-4211 www.forboflooringNA.com email: info.NA@forbo.com