

Vinyl Composition Tile & Bio-Flooring with Diamond 10[®] Technology Coating

Following are guidelines for maintaining Armstrong Flooring's Vinyl Composition Tile (VCT) and Bio-Flooring with Diamond 10 Technology coating. They are based on general experience using established methods and cleaning materials. It is important that these guidelines are read carefully.

Ultimately, local site conditions will determine what specific maintenance procedures and frequencies are needed. It is the responsibility of the maintenance provider to establish the maintenance program(s) that meet the demands of the space(s) and needs of the facility.

All resilient floor coverings require maintenance. How frequently the floors must be maintained depends largely on the factors described below. Following regular and well-planned maintenance programs protects the floor by reducing wear, preserves the floor's attractive appearance and ultimately increases its service life.

- **How to Determine/Tailor A Maintenance Program**

Before establishing a maintenance program, there are a number of factors which must be considered in order to determine the most appropriate, cost-effective methods to use. It is critical that the maintenance methods for each floor and area be chosen only after careful evaluation and regard to the following:

- **End User's Expectations**
What is considered an acceptable level of appearance by the owner, customers, staff or end-user? What is the desired gloss (high or low gloss)?
- **Type of Facility & Location of Flooring**
Entryways, lobbies, classrooms, checkout lines and pivot-point areas may require more frequent cleaning than lower traffic areas in other parts or upper levels of the building.
- **Volume and Type of Traffic and Soil**
Traffic types and volumes in entryways and corridors will vary greatly from those found in classrooms and checkout lines. Dirt and grit carried in from the outside can differ significantly from the soils and chemical spills found in a laboratory or emergency room.
- **Color/Design of Flooring**
Color and pattern can have a significant impact on a floor's appearance and, when properly chosen, may help mask soiling and staining. Mid-tones are better choices than light or dark colors. Busier/high contrast patterns will hide better than solid/monolithic ones.
- **Resources/Equipment/Chemicals/Personnel/Budget**
Are well-trained maintenance personnel available?
Are the appropriate pieces of equipment (scrubbers, buffers, mops, pads, etc.) available?
Are the appropriate chemicals available?
What is the budget?
- **Special Traffic/Footwear**
Areas subjected to frequent rolling loads provide a different environment than a children's play area or corridor in an elementary school.

Maintenance Recommendations for Resilient Flooring

Preventive Care and Maintenance

Controlling grit and soil is crucial to prolonging the attractive appearance of any floor. Grit or soil is any material—including dirt, stones, sand and clay—that is deposited onto the floor by normal commercial traffic. The best way to control grit is by using appropriate and well-maintained walk-off mats. Studies over the years have shown that properly installed and properly maintained entrance matting systems significantly reduce the amount of soil and water tracked into the building. Less soil means reduced wear, longer appearance retention, increased service life and reduced maintenance costs.

Recommended walk-off mats should:

- Have a high-friction, open surface design to knock grit particles from the bottoms of shoes and then trap the particles.
- Be used at every entrance, inside and outside, should be at least as wide as the doorway and 8' to 12' long.
- Have a backing that won't stain the floor.
- Be cleaned regularly, vacuumed, shaken and/or hosed off frequently.

While walk-off mats will retain a substantial amount of this grit and soil, some will still find its way into the building. Regular vacuuming, sweeping and dust-mopping will help to further control this type of grit.

Furniture Rests (feet, glides, casters, etc.)

Proper selection and care of furniture rests is important in the maintenance and appearance retention of all types of floor coverings. Following are some guidelines to consider:

- The contact area should be large enough to distribute the load evenly without damaging the floor.
- The contact area should be smooth and flat to provide full contact and free of small protrusions, irregularities, roughness, depressions, mold lines, embedded dirt, and grit, etc.
- All edges should be slightly rounded to prevent damage if briefly turned on edge.
- Rests should be manufactured from non-staining materials.
- Rests should be properly maintained. Worn, damaged and missing furniture rests should be replaced.

Furniture, appliances, equipment, etc., should be properly leveled so that all rests are fully and firmly on the floor at all times.

Other Maintenance Tips for Best Results

- Newly installed flooring should not be exposed to rolling load traffic for at least 72 hours after installation to allow setting and drying of the adhesive.
- If it becomes necessary to move any heavy fixtures or appliances over the flooring on casters or dollies, the flooring should be protected with 1/4" or thicker plywood, hardboard or other underlayment panels. If other on-site work is continuing, consider using a protective covering such as plain, undyed Kraft paper to guard against damage to the new floor.
- Do not wet wash, machine scrub, or strip the floor for at least five days after installation. This is to prevent excess moisture from interfering with the adhesive bond and/or seam treatments.
- The use of aggressive strippers such as mop-on/mop-off, no-scrub and no-rinse strippers is not recommended on tile floors less than 2 years old because they may affect the adhesive bond.
- When performing wet maintenance, always use proper signage and prohibit traffic until the floor is completely dry.
- Do not use excessive amounts of liquid during maintenance.
- Do not use brown or black pads, equivalent brushes or stiff-bristled, highly abrasive brushes on any Armstrong resilient flooring.

Maintenance Recommendations for Vinyl Composition Tile & Bio-Flooring with Diamond 10® Technology Coating

Armstrong Flooring's Vinyl Composition Tile and BBT® Bio-Flooring with Diamond 10 Technology coating is manufactured with a high performance, hydrophobic, diamond-infused, urethane finish that provides outstanding scratch, stain, scuff resistance, and improved maintenance characteristics for the end-user. Where applicable, the hydrophobic properties require a one-time scrubbing with neutral cleaner to activate the surface to ensure wet out of disinfectant/germicidal cleaners. See below for more information.

Polish Option

NOTE: In very high traffic, high abuse areas and/or areas of high soil loading for example, grocery stores, other large retail spaces, checkout lines, classrooms, multi-purpose rooms, etc., the use of polish as part of Initial Maintenance is highly recommended. If the installation has 50% or more dark colors in field trafficked areas, it must be treated as a high traffic and abuse area. See chart on page 7 for a list of dark colors. In lower traffic areas the onset of polish use may be delayed until such time as the floor's appearance dictates and can be conducted as part of periodic maintenance as described below.

NOTE: With Diamond 10 Technology coating, higher gloss levels and a more uniform overall appearance can be achieved with half of the number of coats recommended by the polish manufacturer, of a high-quality commercial floor polish, such as Armstrong® S-480 Commercial Floor Polish.

A. Initial Maintenance – Preparation for Commercial Traffic, Immediately After Installation

1. Sweep, dust mop or vacuum the floor thoroughly to remove all loose dust, dirt, grit and debris.
2. Remove any dried adhesive residue with a clean, white cloth dampened with mineral spirits, carefully following warnings on the container.
3. Damp mop the floor with a properly diluted neutral (pH 6 to 8) detergent solution such as Armstrong S-485 Commercial Floor Cleaner. Allow the floor to dry.
4. To promote polish adhesion, dry buff the floor at a low speed (125-300 rpm) with a buffer pad (3M™ red or equal) or equivalent brush.
5. Apply half the number of coats recommended by the manufacturer of a high-quality commercial floor polish, such as Armstrong® S-480 Commercial Floor Polish.

B. Daily / Regular Maintenance

1. Sweep, dust mop or vacuum the floor daily to remove dust, dirt, grit and debris that can damage the floor and become ground into the surface.
2. Spot mop as needed. Any spills should be cleaned up immediately.
3. Damp mopping of the floor should be performed on a regular or daily basis, depending upon traffic and soil levels in the space. Use a properly diluted neutral detergent solution such as Armstrong® S-485 Commercial Floor Cleaner.

Maintenance Recommendations for Resilient Flooring

C. Periodic Maintenance

1. When needed, after sweeping, dust mopping or vacuuming, machine scrub the floor with a properly diluted neutral detergent solution such as Armstrong S-485 Commercial Floor Cleaner and the appropriate scrubbing pad 3M red or equal for light scrub, 3M blue or equal for a deep scrub) or equivalent brush.

NOTE: If electing to apply polish for the first time, scrubbing should be conducted with a brush equal to a 3M blue pad.

2. Thoroughly rinse the entire floor with fresh, clean water. Remove rinse water and allow the floor to dry completely.
3. If the floor was previously being maintained with polish, additional coats of floor polish may be applied at this time. If there is sufficient base of polish remaining (3 coats), buff, spray buff or burnish to restore gloss.
4. If polishing for the first time, apply half the number of coats recommended by the manufacturer, of a high-quality commercial floor polish, such as Armstrong S-480 Commercial Floor Polish.

NOTE: If at some point it becomes necessary to remove polish build-up by stripping the floor. The use of high-quality maintenance products such as Armstrong Flooring commercial floor care products and adherence to a well-planned maintenance program will greatly reduce or perhaps eliminate the need for stripping. Should stripping become necessary, follow the procedures outlined below.

D. Restorative Maintenance – Stripping of Existing Floor Finish/Polish

1. Mix stripping solution to the appropriate dilution, depending on floor finish build-up.
 - Cordon off areas to be stripped.
 - Use proper signage and prohibit traffic until restorative maintenance procedures are completed.
 - Apply liberal amounts of solution uniformly on floor with mop.
 - Let stripping solution soak for the appropriate amount of time recommended by the stripper manufacturer.
 - Keep areas to be stripped wet. Rewet if necessary.
2. Machine scrub the floor (300 rpm or less) with a scrubbing pad (3M™ blue or equal) or equivalent scrub brush to break up the polish film. **Do not allow stripping solution to dry on the floor.**
3. Remove dirty stripping solution with a wet vacuum or mop. **TIP: Drizzling fresh, clean rinse water onto the dirty stripping solution will assist with more thorough removal.**
4. Thoroughly rinse the entire floor with fresh, clean water. Remove rinse water and allow the floor to dry completely.
5. Apply half the number of coats recommended by the manufacturer, of a high-quality commercial floor polish, such as Armstrong S-480 Commercial Floor Polish.

Low Maintenance Option: No Polish – No Buff

A. Initial Maintenance and Preparation for Commercial Traffic

1. Sweep, dust mop or vacuum the floor thoroughly to remove all loose dust, dirt, grit and debris.
2. Remove any dried adhesive residue with a clean, white cloth dampened with mineral spirits, carefully following warnings on the container.
3. Damp mop the floor with a properly diluted neutral (pH 6 to 8) detergent solution such as Armstrong S-485 Commercial Floor Cleaner.
4. If necessary, scrub the floor using a rotary machine or auto scrubber with a properly diluted neutral detergent solution (such as Armstrong S-485 Commercial Floor Cleaner) and the appropriate scrubbing pad or brush (aggressiveness equivalent to 3M red pad for light scrub, 3M™ blue pad or equal for a deep scrub).
5. Thoroughly rinse the entire floor with fresh, clean water. Remove rinse water and allow the floor to dry completely.

Maintenance Recommendations for Resilient Flooring

B. Daily / Regular Maintenance

1. Sweep, dust mop or vacuum the floor daily to remove dust, dirt, grit and debris that can damage the floor and become ground into the surface.
2. Spot mop as needed. Any spills should be cleaned up immediately.
3. Damp mopping of the floor should be performed on a regular or daily basis, depending upon traffic and soil levels in the area. Use a properly diluted neutral detergent solution such as Armstrong S-485 Commercial Floor Cleaner.

C. Periodic Maintenance

1. When needed, after sweeping, dust mopping or vacuuming, machine scrub the floor with a properly diluted neutral detergent solution such as Armstrong S-485 Commercial Floor Cleaner and the appropriate scrubbing pad (3M red or equal for light scrub, 3M blue or equal for a deep scrub) or equivalent brush.
2. Thoroughly rinse the entire floor with fresh, clean water. Remove rinse water and allow the floor to dry completely.

NOTE: At some point based on the floor's appearance it may be necessary to apply floor finish. Determined by the desired appearance of the floor after review, apply 50% fewer coats of polish.

Recommended Review Periods:

High Foot Traffic – Every 3 Months
Moderate and Low Foot Traffic – Every 6 Months

Low Maintenance Option: No Polish – Spray Buff

A. Initial Maintenance and Preparation for Commercial Traffic

1. Thoroughly rinse the entire floor with fresh, clean water. Remove rinse water and allow the floor to dry completely. Sweep, dust mop or vacuum the floor thoroughly to remove all loose dust, dirt, grit and debris.
2. Remove any dried adhesive residue with a clean, white cloth dampened with mineral spirits, carefully following warnings on the container.
3. Scrub the floor using a rotary machine or auto scrubber with a properly diluted neutral detergent solution (such as Armstrong S-485 Commercial Floor Cleaner) and a 3M blue pad scrubbing pad or equivalent scrubbing brush.
4. Thoroughly rinse the entire floor with fresh, clean water. Remove rinse water and allow the floor to dry completely.
5. Spray buff using a rotary machine (175 to 1000 rpm) with the appropriate pad and spray buff solution.

B. Daily / Regular Maintenance

1. Sweep, dust mop or vacuum the floor daily to remove dust, dirt, grit and debris that can damage the floor and become ground into the surface.
2. Spot mop as needed. Any spills should be cleaned up immediately.
3. Damp mopping of the floor should be performed on a regular or daily basis, depending upon traffic and soil levels in the area. Use a properly diluted neutral detergent solution such as Armstrong S-485 Commercial Floor Cleaner.

C. Periodic Maintenance

1. When needed, after sweeping, dust mopping or vacuuming, machine scrub the floor with a properly diluted neutral detergent solution such as Armstrong S-485 Commercial Floor Cleaner and the appropriate scrubbing pad (3M red or equal for light scrub, 3M blue or equal for a deep scrub) or equivalent brush.
2. Thoroughly rinse the entire floor with fresh, clean water. Remove rinse water and allow the floor to dry completely.

Maintenance Recommendations for Resilient Flooring

NOTE: With the No Polish - Spray Buff option, at some point it may become necessary to remove polish build-up by stripping the floor. The use of high-quality maintenance products such as Armstrong Flooring commercial floor care products and adherence to a well-planned maintenance program will greatly reduce the need for stripping. Should stripping become necessary, follow the procedures outlined below.

D. Restorative Maintenance – Stripping

1. Mix stripping solution to the appropriate dilution, depending on floor finish build-up.
 - Cordon off areas to be stripped.
 - Use proper signage and prohibit traffic until restorative maintenance procedures are completed.
 - Apply liberal amounts of solution uniformly on floor with mop.
 - Let stripping solution soak for the appropriate amount of time recommended by the stripper manufacturer.
 - Keep areas to be stripped wet. Rewet if necessary.
2. Machine scrub the floor (300 rpm or less) with a scrubbing pad (3M™ blue or equal) or equivalent scrub brush to break up the polish film. **Do not allow stripping solution to dry on the floor.**
3. Remove dirty stripping solution with a wet vacuum or mop. **TIP: Drizzling fresh, clean rinse water onto the dirty stripping solution will assist with more thorough removal.**
4. Thoroughly rinse the entire floor with fresh, clean water. Remove rinse water and allow the floor to dry completely.
5. Spray buff using a rotary machine (175 to 1000 rpm) with the appropriate pad and spray buff solution.

NOTE: At some point based on the floor's appearance it may be necessary to apply floor finish. Determined by the desired appearance of the floor after review, apply 50% fewer coats of polish.

Recommended Review Periods:

High Foot Traffic – Every 3 Months
Moderate and Low Foot Traffic – Every 6 Months

Use of Disinfectant/Germicidal Cleaners on the Diamond 10® Technology Coating

For end-use applications where disinfectant/germicidal chemicals are routinely used on the floor as part of a strict surface disinfection protocol, to ensure the proper wet out of these types of cleaners, the factory surface of the floor must first be thoroughly scrubbed with a properly diluted, neutral cleaner using a rotary machine (300 rpm or less) equipped with a 3M blue pad scrubbing pad or equivalent brush.

1. Sweep, dust mop or vacuum the floor thoroughly to remove all loose dust, dirt, grit and debris.
2. If applicable, remove any dried adhesive residue with a clean, white cloth dampened with mineral spirits, carefully following warnings on the container.
3. Scrub the floor using a rotary machine or auto scrubber with a properly diluted neutral detergent solution (such as Armstrong S-485 Commercial Floor Cleaner) and a 3M blue pad.
4. Thoroughly rinse the entire floor with fresh, clean water. Remove rinse water and allow the floor to dry completely.

Maintenance Recommendations for Resilient Flooring

Surface Preparation Guide for Diamond 10® Technology Coating

Product Application	Floor Preparation (one-time application)
Applying polish during initial maintenance	Dry buff with a 3M red pad or equivalent brush at 125-300 RPM
Applying polish for the first time after initial maintenance	Wet scrub with a 3M blue pad or equivalent brush with a neutral detergent solution during periodic maintenance or a stripping solution during restorative maintenance
Applying germicidal cleaners	Wet scrub with a 3M blue pad or equivalent brush with a neutral detergent solution

Dark Color Chart

If the installation has 50% or more dark colors in field trafficked areas, it must be treated as a high traffic and abuse area.

Standard Excelon® Imperial® Texture with Diamond 10® Technology Coating	Standard Excelon® MultiColor™ with Diamond 10® Technology coating	Premium Excelon® Raffia® Stream™ with Diamond 10® Technology coating	Striations BBT™ with Diamond 10® Technology coating
Z1813, Z1814, Z1816, Z1818, Z1820, Z1821, Z1824, Z1868, Z1869, Z1874, Z1879, Z1880, Z1882, Z1884, Z1910, Z1942, Z1943, Z1944, Z1946, Z1947, Z1948, Z7500, Z7503, Z7504, Z7505, Z7506, Z7507, Z7511, Z7512, Z7513, Z7514, Z7515, Z7517	Z2517 Z2518 Z2522	Z5920 Z5921 Z5923 Z5926 Z5928 Z5933 Z5934 Z5935 Z5937 Z5938	T3603 T3604 T3607 T3612 T3613 T3617 T3631

Quick Reference Chart

Maintenance Recommendation	High Foot Traffic & Abuse Areas	High Foot Traffic	Moderate Foot Traffic	Low Foot Traffic
Definition	The heaviest forms of commercial traffic, including rolling loads & moving furniture	Busy traffic but does not have frequent rolling loads	Has less commercial foot traffic	Rare in education & healthcare spaces
Example Applications	Classrooms, grocery stores, multi-purpose rooms & pivot point areas	Corridors & cafeterias	Library, auditorium, hospital waiting room & gift shop	
No initial polish*		√	√	√
50% fewer coats required of initial polish**	√			
Routine periodic maintenance procedures	√	√	√	√
Delays the onset of periodic polish maintenance		√	√	
Depending on wear & tear or appearance, polish may be needed. Determined by the desired appearance of the floor after review, apply 50% fewer coats.		Recommended review every 3 months	Recommended review every 6 months	Recommended review every 6 months
Eliminates or reduces the need to strip the floor	√	√	√	√

*Per Armstrong Flooring Maintenance Recommendations, proper selection and care of furniture rests is important in the maintenance and appearance retention of all types of floor coverings.

**If the installation has 50% or more dark colors in field trafficked areas, it must be treated as a high traffic and abuse area. Reference Maintenance Recommendations for more information.