

FLOOR AND WALL COATINGS MAINTENANCE PROCEDURES

I. GENERAL INFORMATION

Please refer to Düraamen Engineered Products Technical Bulletin # 2 as a general guide to care and maintenance. In addition to that guide, Düraamen recommends that the procedures outlined below be considered. Bristled brushes used with cleaning equipment are available in various degrees of stiffness and may dull or leave scratches or swirl marks in the surface of the acrylic, epoxy, polyurethane and polyaspartic coatings. Consult with the supplier of your cleaning equipment for specific recommendations on which brushes to use. When cleaning your new floor for the first time, test a small isolated area to confirm that the brush bristles do not immediately dull the finish or leave swirl marks. It is recommended to start out by using the softest bristle available that will achieve the desired result. Foot traffic over an extended time period may also dull the surface of epoxy, polyurethane and polyaspartic coatings or leave scuff marks. Acrylic and Epoxy coatings will dull more quickly than polyurethane or polyaspartic topcoats with wear and/or continued maintenance. If a high gloss maintenance finish is needed, we recommend a clear polyurethane or polyaspartic topcoat.

In lieu to a polyurethane (urethane) or polyaspartic topcoat, a common procedure for maintaining acrylic and epoxy finishes is to maintain the surface as you would a tile or wood floor i.e., with a floor wax (e.g., Smärtgard).

Non-slip requirement for floors: It is important to carefully balance the degree of texture for non-slip performance with the need for cleanability. A floor texture similar to coarse sandpaper will be very non-skid but will also trap dirt and grime and will not clean with mopping alone. A very coarse texture will require aggressive scrubbing or steam cleaning. Düraamen publishes coefficient of friction (COF) ratings for several flooring systems and also for several specific topcoats, based upon ASTM D-2047 or ASTM C-1028(M). Refer to the specific system data sheet or COF test report summary. For several flooring systems this test result is based on what Düraamen describes as a medium coarse texture. This degree of texture is created by applying a single grout coat over the final aggregate broadcast at an approximate coverage rate of 80-100ft²/gal. This degree of texture may or may not be suitable for your project. We recommend evaluating samples showing varying degrees of texture and chosen as per the specific requirements of your project. The non-slip texture and COF rating is a function of both the thickness of the applied topcoat and the inherent COF rating of the particular topcoat used in the flooring system. Achieving a specific degree of non-slip texture and the resulting COF rating on any particular project is determined by the flooring contractor, architect or client. On-site testing to determine the actual coefficient of friction rating of an installed floor system is the responsibility of the facility owner. When a specific coefficient

of friction rating is required, consider using the topcoats tested in COF test report summary.

In short, Düraamen topcoats are excellent floor coatings with high wear properties. As with any epoxy, urethane or polyaspartic coatings, they will dull with wear and/or maintenance. The high gloss can be maintained longer with a clear of polyurethane or polyaspartic or recurring application of Smärtgard. The surface dulling is not a sign of wear as much as a natural dulling.

1. Dry Cleaning Procedure

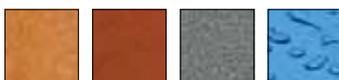
- a. Sweep with a fine broom or dust mop.
- b. Remove all surface dirt and grit.
- c. DO NOT use sweeping compound.

2. Lightly soiled floor cleaning

- a. Damp mop floors with a neutral cleaner (Stride by SC Johnson, Simple Green, etc.). Please do not use soaps, crystallizing salts, alkalis or acids.
- b. Allow cleaner to stand several minutes to dissolve dirt – DO NOT allow complete drying.
- c. Hand Scrub stains and/or scuff marks using a section of a buffing pad
- d. Pick up cleaning solution with mop head.
- e. Final rinse with clean damp mop and clean water.

3. Heavily soiled floor cleaning – Method 1

- a. Scrub floors with a neutral cleaner (Stride by SC Johnson, or equivalent) and a rotary buffing machine (single disc rotary buffer with appropriate pad).
- b. Allow cleaner to stand several minutes to dissolve dirt – DO NOT allow complete drying.
- c. Machine rinse to remove cleaning solution or use wet/dry vacuum.
- d. Final rinse with a clean damp mop and clean water.
- e. Oil or Tar Stains: If the above procedure is not effective, try a citrus based degreaser (Zep Industrial Citrus Cleaner, Tri-sodium Phosphate, etc.).
- f. Difficult stains on textured broadcast or troweled mortar floors: A light duty portable steam cleaner will remove entrapped dirt. Caution is advised if using steam to clean thin-film systems. Avoid thermal shock which may cause cracking or loss of bond.



- g. Oil or grease residue in kitchens and food processing areas: A slippery residue may build up if the floor is not consistently and thoroughly cleaned with a degreasing agent such as the products mentioned in section 'e' above. Scrubbing with a brush may be necessary for heavy build up. Floors with aggressive non-slip texture may also become slippery from grease build up if not cleaned thoroughly.

4. Heavily Soiled Floor Cleaning – Method 2

- a. Use a butyl degreaser (Zep, Simple Green, etc.) diluted in hot water as recommended by the manufacturer. Wax strippers should never be used as a degreaser.
- b. Apply to floor surface and let sit for 15 minutes.
- c. Use a rotary buffer with 3M red model 5100 pads to agitate the surface. A deck brush with stiff bristles may also be used if you don't have a rotary floor buffer.
- d. Remove the cleaning product from the floor with a soft neoprene squeegee. Do not use a mop.
- e. Rinse the floor with clean warm or hot water and remove the water with a soft neoprene squeegee.
- f. Areas that don't have a drain to squeegee the water into can utilize a wet/dry vacuum.
- g. Oily or greasy spills should not be cleaned with a mop. Always follow the clean up instructions on the MSDS for the spilled product.
- h. All other spills should be cleaned up immediately to prevent staining and to reduce slipping hazards.
- i. The floor surface should be protected when moving furniture or heavy equipment across it.

5. Miscellaneous/Unusual Floor Cleaning Situations

- a. Silicone contamination: DuBois Chemicals's DuSqueeze, consult with Johnson Diversey on specific instructions and suitability, 800.438.2647.

6. Additional Floor dressing for High Gloss Finish

- a. Apply one coat of Smärtgard over a clean floor.
- b. Apply additional coats at minimum 30 minute intervals to achieve desired sheen.
- c. Allow floors to dry overnight (approximately 12-18 hours).
- d. Buff using buffing machine with white pad at standard buffer speed.

7. Rejuvenation of Sheen – As required by floor wear conditions

- a. Dust mop or broom clean floor to remove all dirt and grit to be sure it is not buffed into the epoxy/urethane/polyaspartic surfaces.
- b. Lightly spray acrylic dressing rejuvenator area to be treated (SNAPBACK by Johnson Diversey, or equal). Fine mists only, do not over spray.

- c. Buff with a single disc rotary buffing machine and white pad at standard buffer speed.
- d. Wax Strippers: Typical wax strippers used on resilient flooring and hard surface flooring are suitable for use on Duraamen polyurethane and polyaspartic topcoat and will not harm the finish when used as directed by the manufacturer. Proper dilution rate must be followed, do not exceed recommended dwell time. Duraamen can test any questionable products to confirm suitability. Recommended Products: Zep Heavy Duty Floor Stripper (or equal).

8. Floor Cleanup – New Construction

- a. Treat floors as described in Section 3 – TWICE PER WEEK for a period of 2 to 3 months after completion of construction and/or building occupancy.

9. Wall Coating Systems – New Installation, Periodic Cleaning

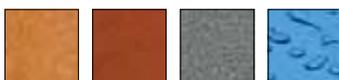
- a. Wall coating system should be fully cured before cleaning, refer to topcoat product data sheet.
- b. If the facility specifies a particular cleaning chemical or sanitizer, try the cleaning solution in a very small inconspicuous area to confirm that there is no change in gloss or color, then you can safely use that cleaning solution throughout the wall.
- c. If no cleaning product is specified, in general start with a mild detergent or a mild commercial cleaner and water solution for washing. Heavily soiled areas may require a stronger alkaline solution: one gallon of lukewarm water with a tablespoon of Tri-sodium phosphate or two tablespoons ammonia. Be careful with the concentration or loss of gloss or discoloration may result. Rinse the wall clean water to get rid of the cleaning solution.

OWNER'S INSTRUCTIONS PRIOR TO INITIAL USE FOR NEW EPOXY/POLYURETHANE/ POLYASPARTIC FLOORING SYSTEM

10. Minimum Cure Time Before Use

- a. Depending on the specific epoxy or urethane resin topcoat used, in general keep light foot traffic off the floor a minimum of 24 hours (at 70°F) after installation of final topcoat. Important: Confirm cure time with product data sheet. Keep vehicles or other heavy traffic (installation of equipment, fixtures, etc.) off new flooring system for a minimum of 72 hours (at 70°F) after installation of final topcoat. Allow additional time if temperature is colder than 70°F. Urethane Concrete Systems: without polyurethane/polyaspartic topcoat, full cure is achieved in 24 hours for vehicle traffic or exposure to chemicals (at 70°F). Polyaspartic topcoats: 3-6 hours for light foot traffic (at 70°F), 18-24 hours for vehicle traffic depending on applied thickness of topcoat and specific formulation used.

Important: Failure to stay off the floor for the specified time period may result in damage to the floor system and void any warranty offered by Duraamen Engineered Products Inc and/or the flooring contractor.



- b. Protection of flooring system from other trades: Brown craft paper works well for light traffic and does not pose a risk for entrapping moisture. For heavier traffic including Hyster lifts, use masonite or plywood with craft paper or plastic sheeting underneath. For a more durable substitute for plastic sheeting, consider proprietary reinforced sheet goods and mats that are readily available. Do not place Masonite directly on resin floor material or discoloration may occur. Be careful not to entrap moisture beneath the plastic or a white haze form which can be difficult or impossible to remove, requiring a reapplication of a topcoat at the very least.
- c. Cleaning/Waxing: Keep water or any liquids off new flooring system for a minimum of 5 days (at 70°F) after installation of final topcoat. Allow additional time if temperature is colder than 70°F. Prior to wet cleaning the floor the first time, test small inconspicuous area for any adverse reaction (formation of water spots, milky haze, or loss of gloss). Perdüre UMC (TG/SL) systems with no epoxy/polyurethane topcoats may be cleaned in 24 hours. Polyaspartic topcoats for a minimum of 5 days (at 70°F). Delay waxing/buffing of epoxy or polyurethane topcoats for a minimum of 5 days at 70°F to ensure final topcoat is fully cured and hard enough to withstand abrasion from high speed buffers, otherwise loss of gloss may occur.
- d. Special note for facilities using bleach solutions or high performance disinfectants: Bleach solutions that are not rinsed away soon after use may leave a permanent white haze or dulling of the finish. High performance disinfectants may discolor the finish of various epoxy, polyurethane and polyaspartic coatings.
- e. Painter's Tape: DO NOT tape the Painter's Tape on any of the topcoats for a very long time. The painter's tape may chemically bond with the topcoat. While removing the tape, it may pull the topcoat along with it.
- f. Scuff Marks from shoes or soft rubber – Some random scuff marks can be removed by rubbing a tennis ball on the scuff mark. Baking soda paste will also remove the scuff marks. We have found that products such as Kent Automotive's Speedy 500 or Acrysol (www.kent-automotive.com) do an excellent job of removing black scuff marks with little or no effect to the surface appearance. For large areas, wet the area, then apply 20 parts warm water to 1 part concentrated orange citrus, scrub with 3M ssp pad and rinse thoroughly. We recommend this treatment as a method of removing hard to remove black marks.
- g. Pointed heavy loads will damage the flooring surface. Use Soft Tread casters for your chairs and also use hard floor chair mat below the chairs so that the floor is protected from scratches from constant moving back and forth of the chairs.

