



whittaker
The SmartCare® Carpet System

SmartCare® Cleaning Guide

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Whittaker SmartCare® Cleaning Guide

Introduction / Overview

Carpet is a major investment for any facility and provides the benefits of a clean environment that is conducive to productivity and occupant comfort.

Planning and implementing a scheduled maintenance program protects your capital investment and effectively contains maintenance costs. Properly maintained carpet enhances facility appearance, contributes to a professional image, and protects the capital investment through extended product life cycles that lower your overall cost.

Carpet enhances workplace wellness and the indoor environment in several ways:

- Carpeted areas are quieter and make it easier to concentrate whether at work or school
- Particulate soils tend to settle into carpet fibers until they are vacuumed, and do not re-circulate freely throughout the building
- Fewer slip/fall accidents occur on carpeted surfaces
- Carpet provides thermal resistance, which can reduce energy costs

Comprehensive cleaning programs foster cleaner air and healthy environments that look good, boost morale and ultimately improve performance.

Four Cornerstones of a Smart Carpet Care Program

1. Preventive Maintenance

Stop dirt in its tracks with well placed entrance mats that trap soil and absorb moisture

2. Daily Maintenance

Schedule vacuuming and daily spotting

3. Interim Maintenance

Establish minimum cleaning frequencies to retain fresh carpet appearance. Use low-moisture encapsulation for maximum pile-lifting at scheduled cleaning intervals

4. Restorative Maintenance

Perform scheduled periodic deep cleaning using hot water extraction

PREVENTIVE MAINTENANCE

Overview

One of the best values in facility maintenance is an effective preventive maintenance program, especially since 85% of soil comes in the door clinging to the feet of visitors and occupants. Cleaning up soil accumulations contained in one place reduces cleaning costs and enhances the appearance of your facility. The International Sanitary Supply Association (ISSA) estimates that it costs \$600 to capture and remove one pound of soil after it is tracked into a facility. Careful mat selection and placement are essential for quality results. An entrance mat can easily accumulate over 1 pound of soil in a day in some facilities.

A comprehensive matting system

- Enhances facility cleanliness
- Increases safety by absorbing liquids at entrances and where potential accumulations could cause slip/fall accidents
- Easily accommodates the first five or six footfalls, which carry in 80% of tracked-in soil and water
- Determines placement by taking into consideration traffic flow and volume at all entry points
- Allows for 9-15 feet inside the entrance for peak effectiveness
- Provides maximum grit control and water retention

An efficient entrance mat accomplishes four major tasks:

1. Stops soil and water at the door

A combination of scraping and wiping stops the maximum amount of contaminants.

2. Stores soil and water for removal

Trapping water and contaminants prevents them from seeping and spreading to the surrounding floor, where they can lead to slip/fall hazards.

3. Minimizes tracking of soil and water

Bi-level construction provides upper surface for walking and lower compartment that holds soil and water for removal later. 1/8" depth permanently molded into mat surfaces is sufficient to keep moisture and dirt from reattaching to shoes.

4. Provides a safe surface

Slip-resistant surfaces prevent mat from creeping. Water absorbed by the mat is contained below the traffic surface.

Note: Scraper mats, highly effective at removing soil, should be used in tandem with absorbent wiping mats that remove water and fine particulate soil.

DAILY MAINTENANCE – VACUUM AND SPOT REMOVAL

Overview

The single most effective and economical way to extend the life of carpet is thorough daily vacuuming. Since routine vacuuming removes 90% of all dry soil by weight, removing this soil before it can be worked down into the carpet fibers reduces maintenance costs and extends the life of the carpet. Daily visual inspection enables spots and spills to be cleaned up before they become stains. Spots should be treated with low-moisture spotting procedures immediately.

- Choose equipment suited to the fiber type and construction. Look for the Carpet and Rug Institute (www.carpet-rug.org) certification symbol for models that meet strict standards for soil removal, particulate containment and appearance retention. TheCRI website has a list of approved vacuum cleaners.
- Establish vacuuming schedules according to traffic volume in specific areas, weather conditions and facility use.
- Train staff in proper vacuuming methods and equipment care.
- Commit to a daily low-moisture spotting program.

Low-Moisture Spotting and Encapsulation

Encapsulation spotting is an effortless system, yet it is extremely effective for over 90% of unidentifiable spots. Encapsulation spotting simplifies a complex process to ensure best practice and quality results.

Effective Spotting in 2 Simple Steps

1. Apply Crystal Spotter carpet spotting agent using a trigger sprayer or 2 gallon pump-up sprayer.
2. Agitate the spot inward with Whittaker Carpet Roamer Spotting Tool. Blend in surrounding area for a consistent appearance.

Simplified Spot Removal

Prior to Crystal Dry Spotting, typical spot removal was a difficult task requiring complex charts to determine the correct chemical for a specific spot. Additional follow-up was also required to make sure no residues were left in the carpet after the multi-step blot, rinse, apply spot remover, etc.

The spotting tool's design features two distinct bristle settings, soft and firm, to adapt to various carpet constructions and effectively remove surface soil and embedded debris. The tool is ergonomically designed and the handle adjusts smoothly to fit the user. Wheels at the end of the brush support the polypropylene bristles for consistent pressure and cleaning performance. At the next vacuum cycle, soil-laden polymer crystals are easily removed. Dirt has nothing to cling to, so spots are not likely to reappear. This spotting procedure can be performed as often as required.

Crystal Dry® is certified by the WoolSafe Organisation, and will not harm delicate woolen fibers.

Wet spills – Blot up excess moisture as soon as possible. For large amounts use a wet vacuum to recover as much as possible, then blot dry. Finally, follow up with Crystal Spotter carpet spotting agent as described above.

Note: Occasionally a spot may reappear or cannot be removed easily. Contact a certified carpet technician or use a multi-bottle spotting kit and trouble shooting chart. Visit www.carpet-rug.com or use manufacturer recommendations to remove stubborn spots and stains.

Daily Vacuuming

The right equipment enhances outcomes

Choose a quality commercial vacuum or follow recommendations by the carpet manufacturer. Take into consideration carpet profile, density and fiber type. Look for high-efficiency particulate air filtration (HEPA), disposable vacuum bags, high airflow, durability and commercial performance to ensure the equipment selected is the most effective at soil removal and dust containment.

Types of vacuums

- Backpacks
- Canisters
- Hip
- Upright

Vacuum maintenance

- Periodically check brushes and belts for wear.
- Change disposable bag when half full; 80% efficiency is lost when a vacuum bag is over half full.
- Inspect cords and other electrical components for proper safety.

Training

Proper vacuuming methods ensure effective carpet care, save time and reduce labor costs.

- Roller brushes and non-electrical suction wands with brush strips open tufts, agitate and loosen soil.
- Slow pass vacuuming allows time for additional airflow to remove embedded soil.
- The combination of forward and backward passes is more effective in removing soil.
- Productivity rates are 1,000-4,000 sq. ft. per hour for obstructed areas, and 4,000-10,000 sq. ft. per hour for unobstructed areas such as hallways and lobbies. This depends on the production of equipment and the method of cleaning.

Daily Maintenance: Vacuuming Frequency Minimums

Area	Traffic Conditions	Minimum Frequency
Entrance Areas	Heavy	Daily
Ground Floor Areas / Hallways	Heavy	Daily
School Corridors	Heavy	Daily
Hallways / General Areas 2 nd floor and above	Medium	Daily
Administrative Offices	Medium	Daily
Classrooms	Medium	Daily
Conference Rooms	Light	Daily
Executive Offices	Light	Daily
General Office Areas / Cubicles	Light	Daily

INTERIM CARPET MAINTENANCE – Utilizing Low-Moisture Encapsulation

Overview

An effective carpet maintenance program always includes Interim Maintenance with established minimum cleaning frequencies. The goal of Interim Maintenance is to keep the carpet clean and maintain the highest possible level of appearance at the lowest overall cost.

Low-moisture encapsulation is the preferred method since it effectively combines mill recommended pile-lifting and interim cleaning into a single step, saving time and labor costs. Low-moisture cleaning reduces friction and any fiber distortion that can be caused by dry agitation. A twin-cylindrical brush machine performs both applications, reducing the need for a separate specialty machine.

Embedded soil is released, and carpet is left looking new after each cleaning application without harming carpet fibers or leaving the sticky residues that accelerate re-soiling. Only a small amount of water is required during interim maintenance, which eliminates facility disruption and carpet damage associated with over-wetting.

Interim Low-Moisture Encapsulation Cleaning

Low-moisture encapsulation chemistry is the most cost-effective product for interim maintenance. Crystallizing polymers blend with detergent components to release and encapsulate soil particles without harming the carpet fibers. Environmentally-friendly formulations emulsify dry and oily soils, and are easily removed through ordinary scheduled vacuuming. The Whittaker LOMAC family of twin-cylindrical brush machines requires little training and is easy to use. Embedded soil is safely combed from the carpet fibers using soft, counter-rotating cylindrical brushes and encapsulation chemistry. This leaves the carpet looking new with minimal effort and cost.

The goal of effective interim cleaning is to keep your carpet clean and maintain a consistent appearance level at the lowest possible cost. The primary focus is scheduled low-moisture encapsulation cleaning and the elimination of residues that would otherwise hold soil in the carpet and lead to an increased frequency of deep cleaning applications. Because of the low disruption in an indoor work environment, Whittaker's SmartCare system may be used during work hours.

Low-moisture interim maintenance meets the criteria for environmentally sustainable standards. The cleaning process is safe and effective for all types of facilities. Crystal Dry® is designed for optimum cleaning performance when mixed with cold tap water to conserve energy. Scheduled interim maintenance will provide consistent appearance levels and improve the cleanliness of your facility.

Benefits of Low- Moisture Interim Maintenance

- Extended life of your carpet
- Consistent appearance levels
- Meets environmental criteria for a healthy indoor environment
- Inexpensive to perform 2-6 applications per year
- Best interim cleaning practice for quality results

Effective Interim Maintenance Cleaning in 3 Simple Steps

1. Apply encapsulation cleaning solution to carpeting.
2. Agitate solution into the carpet fibers using a lightweight twin-cylindrical machine that provides safe agitation, lifts carpet pile, and removes embedded soil.
3. Vacuum when dry or at the next scheduled vacuum cycle.

Caution: Spin bonneting or rotary agitation can harm carpet fibers and lead to shortened carpet life. The use of rotary agitation may void any factory warranties. Review manufacturer recommendations.

Interim Maintenance - Cleaning Frequency Minimums

Area	Traffic Conditions	Minimum Frequency
Entrance Areas	Heavy	4 x per year
Ground Floor Areas / Hallways	Heavy	4 x per year
School Corridors	Heavy	4 x per year
Hallways / General Areas 2 nd floor and above	Medium	2 x per year
Administrative Offices	Medium	2 x per year
Classrooms	Medium	2 x per year
Conference Rooms	Light	1 x per year
Executive Offices	Light	1 x per year
General Office Areas / Cubicles	Light	1 x per year

DEEP CLEANING – HOT WATER EXTRACTION (HWE)

The goal of deep cleaning is to remove embedded dry soil, oily substances and any residue build-up. Even if not readily visible, these substances can damage fibers and reduce the life of the carpet. Carpet appearance is restored by injecting water into the carpet fiber, agitating to release difficult soil, and wet extracting soiled solution with commercial vacuums into a recovery tank.

Hot water extraction injects hot tap water (not to exceed 150° F) into carpet at 100 PSI (pounds of pressure per square inch) or more. Pre-spray solution should contain low volatile organic compounds (VOC's) with a pH factor 9 and below. Deep cleaning is most effective if the solution, soil and moisture are extracted from the carpet using 100 - 150 inches of vacuum waterlift or more.

To ensure optimum results, pre-spray traffic lane areas and spots prior to extraction (5-10 minute dwell time is recommended). Heavy traffic areas may require additional agitation prior to hot water extraction. Agitate these areas using a twin-cylindrical brush machine to lift the pile and remove embedded soil for better results. Choose environmentally preferred products formulated to extract detergent residues and mineral deposits, which can degrade carpet and accelerate wear. Water injected at high speeds and agitated by brushes effectively pulls more suspended soils out as it is extracted in a single pass.

To prevent over-wetting, exercise caution and follow machine instructions carefully. According to the Carpet and Rug Institute, drying time averages 4-6 hours, but should never exceed 24 hours. The dried carpet should be vacuumed prior to use. Air movers and commercial dehumidifiers may speed drying time.

Note: Spin bonneting or shampooing with an abrasive brush prior to extraction is not recommended by the leading carpet mills. If extreme soil conditions exist, apply traffic lane cleaner (10 minute dwell time) and agitation with a twin-cylindrical brush machine. Use hot water extraction (HWE) to recover all of the soiled solution released through agitation. This two-step process may be necessary only in areas that require deep cleaning. .

Deep Cleaning – Hot Water Extraction (HWE) - Cleaning Frequency Minimums

Area	Traffic Conditions	Minimum Frequency
Entrance Areas	Heavy	6 -12 months
Ground Floor Areas / Hallways	Heavy	6 -12 months
School Corridors	Heavy	6 -12 months
Hallways / General Areas 2 nd floor and above	Medium	12 -18 months
Administrative Offices	Medium	12 -18 months
Classrooms	Medium	12 -18 months
Conference Rooms	Light	18 months
Executive Offices	Light	18 months
General Office Areas / Cubicles	Light	18 months

Care of Wool Carpet

Protect the investment of your wool carpet by following a sensible approach, using a comprehensive maintenance plan suited to the carpet's color, pattern, and construction. The single most effective component in the care of wool carpet begins with daily vacuuming and scheduled interim maintenance using Crystal Dry. Wool likes it cooler, so use warm tap water instead of hot water for better results. Always test for colorfastness in an inconspicuous area. The extra care you give wool carpeting will pay off with long-term resilience and durability.

Avoid these destructive practices:

- Extreme water temperature damages fibers and may cause delamination of seams.
- Cleaning solutions with high VOC's that leave a residue may cause rapid resoiling and fiber damage.
- Using bleach on carpet spots will cause permanent damage.
- Chemicals with high VOC levels may harm the carpet and impact indoor air quality levels.
- Increasing airborne particulates by performing dry pile lifting may recirculate dust and harmful particulates into the indoor environment.
- Spin bonneting and shampooing with a rotary floor machine are not recommended by the leading carpet mills, CRI or WoolSafe Organisation.

Wool carpet requires mild cleaning solutions and safe agitation. Visit www.wool-safe.org for additional information. The Carpet and Rug Institute tests the effectiveness of carpet cleaning equipment and chemistry. Their certification validates cleaning performance and helps customers recognize quality products. Visit www.carpet-rug.org to view the CRI Seal of Approval and recommended products.