



Carpet Care Seminar

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End user Module

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Fifth Generation Carpet Cross Section Exhibit

* 3 Dimensional Virtual Reality training available on CD-ROM for this module from your distributor.



Facility Overview

Reference Guide

Carpet Facts and Carpet Care Methods

- A. 5th Generation Carpet Fiber History (Chart A)
- B. Carpet Fiber Composition & Characteristics (Chart B)
- C. Carpet Care Method & Product Reference Guide (Chart C)
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Facility Overview

Reference Guide – Chart A

5th Generation Carpet Fiber History

1st Nylon Clear Fibers

2nd Altered Fiber Shape

3rd Continuous Filaments

4th Topical Soil Resistant Treatments

5th Built-In Stain Resistance

5th generation carpets should not be exposed to:

1. Cationic surfactants
2. pH greater than 10



Facility Overview

Reference Guide – Chart B

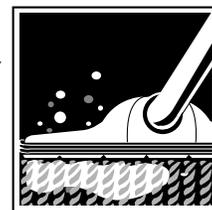
Carpet Fiber Composition

<u>Types</u>	<u>% of Product</u>	<u>Notable Characteristics</u>
Wool	3% Total Production	Natural fiber, prone to shrinkage
Nylon	85% Total Production	Most common fiber, continuous filament
Acrylic	7% Total Production	Excellent resistance to organics
Polyester	<5% Total Production	Excellent resistance to chemicals
Polypropylene	<5% Total Production	Part of Olefin family, excellent wetness resistance

4 = Excellent
 3 = Good
 2 = Fair
 1 = Poor

Carpet Fiber Characteristics

	Wool	Nylon	Acrylic	Polyester	Polypropylene
Absorption	4	2	2	2	1
Abrasion Resistance	4	4	2	3	3
Organic Resistance	1	4	4	4	4
Chemical Resistance	2	4	3	4	4
Traffic Lane Soil Resistance	3	2-4	3	3	3-4
Spot Removal	2	3	3	3	4



Facility Overview

Reference Guide – Chart C

Carpet Care Method & Product Reference Guide

<u>Method</u>	<u>Purpose</u>	<u>Product</u>
Vacuuming	Preventative	Proper equipment for job
Spot Cleaning	Preventative	Traffic Lane & Bonnet Cleaner, Bio-Clenz Spot Cleaner, Tannin Spotter
Stain Resistant	Preventative	Carpet & Upholstery Protectant
Bonnet Cleaning	Interim	Traffic Lane & Bonnet Cleaner
Surface Extraction	Interim	Traffic Lane & Bonnet Cleaner, Extraction Carpet Concentrate, Bio-Clenz Spot Cleaner, Tannin Spotter, Carpet Sanitizer Concentrate
Shampooing	Restorative	Dry Foam Carpet Shampoo, Carpet Sanitizer Concentrate
Deep Extraction	Restorative	Extraction Carpet Concentrate, Carpet Sanitizer Concentrate



Facility Overview

Reference Guide – Chart D

Spotting Chart & Product Reference Guide

Spot Removal

- Apply a few sprays of spotter to spot.
- Agitate spot with end of plastic spotting brush from outside edge in.
- Blot with clean white towel.
- Flush with small amount of water and blot dry.

TYPICAL STAINS	SPOTTERS	SPOTTING PROCEDURES
Heavy Traffic Areas (Only when extracting or shampooing)	Traffic Lane, Bonnet and Solvent Spotter	Prespray with Traffic Lane / Spotter diluted 1:16 (8oz. per gal.) in pump sprayer. In extra dirty or greasy areas increase concentration to 1:8 (16 oz. per gal.). After spotting, shampoo and / or extract.
Asphalt, Cosmetics, Crayon, Grease, Ink, Iodine, Oil Stains, Shoe Polish, Tar, Wax and Wine	Traffic Lane, Bonnet and Solvent Spotter	Rinse after stain is removed. (Shampoo and/or extract, if desired. For difficult stains repeated application may be required. Do not over-wet carpet. (RTU))
Beer, Berry, Juices and Mustard	Bio-Clenz Spot Cleaner	
Coffee, Cola and Tea	Tannin Spotter	
Catsup, Chocolate, Food Stains, Grass, Gravies, and Meat	Bio-Clenz Spot Cleaner	Stop when stain is removed. Shampoo and / or extract if desired. (RTU)
Urine and Fecal Matter	Bio-Clenz Spot Cleaner	Stop when stain is removed. Deodorize and / or extract if desired. (RTU)
Cherry Coke, Kool Aid, Red Wine (Any food containing #20 RED DYE)	Traffic Lane, Bonnet and Solvent Spotter	Apply Traffic Lane / Spotter (undiluted) liberally to stain. Cover stain with moist clean white towel. Preheat iron to cotton setting. Apply iron in 4-5 second intervals, moving towel to clean area each time. Repeat until stain is lifted. DO NOT SCRUB AREA: BLOT ONLY. Be careful to avoid overheating carpet. (RTU)
Blood	Bio-Clenz Spot Cleaner	Stop when stain is removed. Shampoo and / or extract, if desired. (RTU)
Brownout, Soap or Shampoo Residue Buildup	Tannin Spotter	Prespray with product listed. Allow to air dry. (RTU)
Water Rings	Tannin Spotter	Stop when stain is removed. Shampoo and / or extract, if desired. (RTU)
Perfume	Traffic Lane, Bonnet and Solvent Spotter	Stop when stain is removed. Deodorize, shampoo and / or extract, if desired. (RTU)
Rust	Tannin Spotter	Apply to rust spot and blot dry. Shampoo and/or extract, if desired. (RTU)
Chewing Gum	Chewing Gum Remover	Apply to gum, break or chip from surface. (RTU)

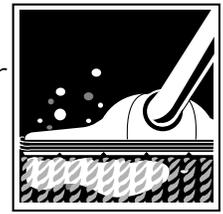
NOTE: BEFORE USING ANY SPOTTER test a small, inconspicuous carpet area for dye stability and / or fabric deterioration. Read carefully all directions and cautions on each container.

For more information consult your sales representative.



Glossary of Terms

Alkalinity	Alkalinity is useful in removing acidic, fatty and oily soils. Soap and soap-based products are alkaline and perform well only in an alkaline medium. Detergent products can be formulated at any level of alkalinity, determined by the cleaning task to be performed.
American Oriental	Woven American carpets of Axminster or Wilton weave in oriental colors and patterns.
Anaerobic Bacteria	Bacteria that thrives in the absence of air or oxygen.
Anionic	Negatively charged part of a molecule. Anionic surfactants are widely used in high-sudsing detergents.
Antistatic Agent	A substance that reduces static electricity produced by friction. Friction causes fabric (especially man-made fabrics, such as nylon and polyester) to produce static electricity discharge.
Axminster	A carpet weave in which pile tufts are individually inserted from colored yarns arranged on spools, making possible an enormous variety of colors and patterns.
Backing	The various materials that comprise the back of a carpet which secures the face of the carpet pile. They include primary backing, which is frequently a woven or non-woven polypropylene, a woven jute, or cotton duck on scatter rugs. Secondary backing is fabric (usually jute, woven or nonwoven polypropylene) laminated to the back of carpet to reinforce and increase dimensional stability. Construction yarns comprising chain warp, stuffer warp, and shot fill are interwoven with the face yarn during carpet formation and are the backings of woven carpets.
Beater Bar	A rigid bar on a vacuum cleaner brush that agitates and loosens soil from the carpet.
Bleeding	Removal of color from carpet or other floor tile material. Some carpets may bleed with hot water. Floor tile (particularly asphalt) can bleed from an excessive concentration of stripper solution.
Brighteners	Optical or fluorescent enhancers found in carpet cleaning products and fabric cleaners.
Broadloom	Term of measurement that designates the width of a carpet.
Browning (Brown Out)	A reaction that occurs in carpets when high pH solutions cause the carpet's natural coloring (usually jute) to travel from the carpet backing to the fiber strand and discolor the carpet. Easily cured with de-browning product applications.
Butyl Cellosolve	A trademark name for a water-soluble solvent frequently used in degreasing products. Actual name of slang term "butyl".
Cationic Surfactant	A surfactant that is from a positively charged ionic group. The most common cationic surfactants are known as quaternary ammonium compounds such as alkyl dimethyl benzyl ammonium chloride. These are widely used as disinfectant and sanitizing products. Not recommended for 5th Generation carpets.



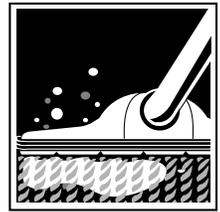
Glossary of Terms (continued)

Cut Pile	The face of a carpet that has had the ends cut at the loops.
Digester	An enzyme used to break down stains caused by food products and blood.
Dimensional Stability	The tendency of a fabric to retain size and shape. A carpet receives additional dimensional stability from the secondary backing.
Dry Foam	A detergent solution with a small amount of water that is mechanically worked into a carpet. The loose soil is removed by a vacuum after becoming encapsulated by the friable powders
Dry Rot	A condition caused by an attack of microorganisms on fibers, textiles, carpets and other materials. An attack on natural carpet backing may cause loss of strength that leads to tearing and break down of carpet.
Exposure Limit	The limit set to minimize an employee's exposure to a hazardous material. Associated terms include Permissible Exposure Limit (PEL), Short Term Exposure Limit (STEL), and Threshold Limit Value (TLV).
Fading	Loss of color caused by actinic radiation such as sunlight, atmospheric gases and cleaning or bleaching chemicals.
Filament	A single continuous strand of fiber.
Gage (Gauge)	The distance expressed in fractions of an inch between two needle points in carpet knitting or tufting.
Jute	A natural cellulosic fiber made from certain plants of the linden family which grow in warm climates such as India and Bangladesh. Jute yarns are used in woven carpet construction as backing for the yarns and twines. Woven jute is used in tufted carpet as primary and secondary backing. The latter are similar to burlap fabrics.
Loop Pile	Carpet style having a pile surface consisting of uncut loops of woven or tufted yarn. Also called "round wire" in woven carpet terminology.
Non-Ionic Surfactant	A surface-active agent that contains neither positively nor negatively charged (ionic) functional groups. These surfactants have been found to be especially effective in removing oily soil.
Optical Brightener	Optical brighteners take otherwise "unseen reflected light" and refract it in a way that allows the human eye to view it. This presents a higher gloss and protects the floor from damaging actinic UV radiation.
Outdoor Carpet	Carpet specifically designed to resist fading and deterioration due to sunlight and water. Most are solvent-dyed polypropylene containing ultraviolet stabilization additives. Coating and backings that are water and rot resistant are usually synthetic.
Pile Height	The length of the extended tufts of a carpet, measured from the primary backing top surface to their tips.



Glossary of Terms (continued)

Pile Density	Refers to closeness of fibers in a carpet to each other. High density increases weight and quality.
Pile Setting	A carpet cleaner's term for the process of erecting damp, disheveled pile following shampooing or extracting, through the use of a pile brush or pile lifting machine.
Polyester	A fiber-forming thermoplastic synthetic polymer used in some carpet that is essentially staple and spun yarn.
Pre-Spot	Removal of stains before more extensive carpet cleaning.
Primary Backing	The carrier fabric for the pile yarn of a carpet into which the yarn tufts have been inserted.
Rotary Bonnet Carpet Cleaning	A carpet cleaning technique in which a detergent solution is worked into the carpet pile by a bonnet attached to a rotary buffing machine. Loosened and suspended soil is transferred to the bonnet. Drying is normally achieved in 60 minutes or less.
Sanitizer	An agent that reduces the number of bacteria to a safe level, but does not completely eliminate them as judged by public health requirements. Usually used in food service areas.
Soil Retardant	A chemical finish applied to carpet and fabric surfaces which inhibits attachment to the soil fiber.
Traffic Lane	High traffic areas that show worn or soiled "lanes."
Traffic Lane Cleaner	A heavy detergent compound used to clean high-traffic carpet areas.



Carpet Care Maintenance Schedule:

Task	100% work Pace Rate ¹	ZONES			
		1 Light Traffic	2 Medium Traffic	3 Heavy Traffic	4 Extra Heavy Traffic
Task Frequency Days Per Year ³					
Vacuum Entrance Mats	3 min/ 1000 Ft ²	130	260	260 x 3 shifts ⁴	260 x 3 shifts ⁴
Vacuum Traffic Lanes	5 min/ 1000 Ft ²	130	260	260 x 3 shifts ⁴	260 x 3 shifts ⁴
Spot Clean	1 min/ 1000 Ft ²	130	260	260 x 3 shifts ⁴	260 x 3 shifts ⁴
Bonnet Clean Traffic Lanes	30 min/ 1000 Ft ²	6	12	30	36
Rotary Dry Foam Shampoo	60 min/ 1000 Ft ²	6	12	30	36
Extraction	90 min/ 1000 Ft ²	1	2	3	4
Carpet Protectant		1	2	3	4

- 1 100% work pace - The rate at which the subject task may be completed properly for an 8 hour period.
- 2 Information acquired from ISSA, BSCAI, and other industry resources.
- 3 Assuming 260 work days
- 4 Task shall be performed every 8 working hours



Carpet Care Procedures

- A. Preparation
 - 1) Collect all supplies required (see equipment list)
 - 2) Assure that equipment is not leaking and wheels are clean
 - 3) Assure that your shoes are clean
 - 4) Pre-test all chemicals in inconspicuous area of carpet to confirm dye fastness
- B. Clear Area of Furnishings
 - 1) Lift safely
 - 2) Protect furnishings that cannot be moved
 - 3) Unplug all electrical items
 - 4) Pick up all walk-off mats
- C. Post "Caution" Signs
- D. Choose Appropriate Safety Apparel
 - 1) Review all MSDS, Labels, and caution statements
- E. Vacuum Area
- F. Perform Restorative, Interim or Preventative Cleaning Task
 - 1) System 1 - Restorative Maintenance
 - a. Extraction Method
 - b. Rotary Floor Machine Shampooing
 - 2) System 2 - Interim Maintenance
 - a. Bonnet Cleaning
 - 3) System 3 - Preventative Maintenance
 - a. Carpet Spotting
 - b. Upright Vacuum Method
- G. Inspect Your Work
- H. Return Furnishings, Supplies & Equipment
 - 1) Return furnishings on dry carpet if at all possible. If not, utilize furniture tabs to shield furniture from dampness remaining in the carpet
 - 2) Refill any chemical containers at this time
 - 3) Clean up & rinse out all equipment
 - 4) Replace all supplies to their original storage location

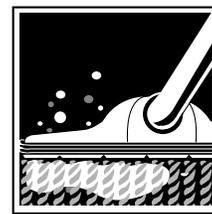


Carpet Care Procedures

Carpet Care



- A. Materials Requirement Planning (MRP)
 - a. Clean rags
 - b. Mop bucket and wringer
 - c. Carpet spotting brush
 - d. Pump-up sprayer
 - e. "Wet Floor" signs
 - f. Iron
 - g. Putty knife
 - h. Carpet bonnets
 - i. Can liner (bonnet only)
 - j. Gloves
 - k. Goggles
 - l. Clean tennis shoes or equivalent
 - m. 17" 175 RPM Floor Machine with gravity feed tank and shower feed drive block
 - n. 17" Carpet brush
 - o. Carpet Extractor
 - p. Vacuum Cleaner
 - q. Products
 - 1) Traffic Lane and Bonnet Cleaner
 - 2) Extraction Carpet Concentrate
 - 3) Dry Foam Carpet Shampoo
 - 4) Foam Control Agent
 - 5) Biological Spot Cleaner
 - 6) Tannin Spotter
 - 7) Carpet Sanitizer Concentrate
 - 8) Carpet and Upholstery Protectant



Carpet Care Procedures (continued)

Carpet Care

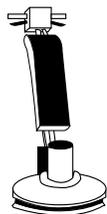
System 1 – Restorative Maintenance

Extraction Method



- 1) Vacuum the carpet thoroughly. Be sure any foreign material stuck to the carpet, such as chewing gum or tape, has been removed. Always wear clean tennis shoes when extracting.
- 2) Using a pump-up sprayer, pre-spray high traffic areas as well as any noticeable spots on the carpet with Traffic Lane and Solvent Spotter.
- 3) To begin the extraction process, add deep-cleaning, quick-impact carpet shampoo to the machine.
- 4) Be sure to use our Foam Control agent in the recovery tank.
- 5) Start extracting at a point farthest from the entrance to the room. Make one pass with the feed valve open while pulling the extractor toward you. Release the control valve before you reach the end of your pass.
- 6) To pick up more moisture, go over the same pass with the control valve closed. Continue to work across the carpet until the area is completely cleaned.
- 7) Rinse the carpet with fresh, clean water.
- 8) Apply a fast-drying carpet and fabric protectant using a pump-up sprayer, paying close attention to any high-traffic areas.

Rotary Floor Machine Shampooing



- 1) Vacuum the carpet thoroughly. Be sure any foreign material stuck to the carpet, such as chewing gum or tape, has been removed. Always wear clean tennis shoes when shampooing.
- 2) Mix the cleaning solution and pour it into the dispenser, (which is attached to the handle of the floor machine).
- 3) Clean the carpet, moving left to right, overlapping each pass.
- 4) Use Rotary Floor Machine in two directions to brighten extra-soiled carpeted floors. The foam left on the carpet will evaporate and leave the soil on the top of the carpet.
- 5) Vacuum up the soil, which now rests on the surface of the carpet.
- 6) Use a nylon hand brush for corners, projections and other areas that cannot be reached with the rotary shampoo machine.
- 7) Wipe any extra shampoo from furniture, baseboards and doors, using a clean, damp cloth or sponge.
- 8) Set carpet pile with carpet brush or rake.
- 9) Apply our revolutionary, fast-drying Carpet and Fabric Protectant, using a pump-up sprayer, paying close attention to any high, traffic areas.

System 2 – Interim Maintenance

Bonnet Cleaning



- 1) Thoroughly vacuum the carpet and all entrance mats. Remove any foreign material stuck to the carpet, such as gum, wax or tar. Always wear clean tennis shoes to bonnet clean. Remove any furniture as necessary.
- 2) Spray about 100 square feet with the Traffic Lane and Bonnet Cleaner, using a pump-up sprayer. Pay close attention to any spots or stains.
- 3) While wearing gloves, dip the bonnet into the shampoo. Wring it out and place your machine on the bonnet.
- 4) Clean the carpet, moving left to right, overlapping each pass.
- 5) When both sides of bonnet are filled with soil, rinse it out, reload with shampoo, and keep cleaning until the entire carpet is done.
- 6) To speed dry the carpet, go over it again with clean, dry bonnets, turning and changing them often.
- 7) After the carpet is dry, vacuum thoroughly and replace the furniture in its original position.



Carpet Care Procedures (continued)

Carpet Care

System 3 - Preventative Maintenance

Carpet Spotting

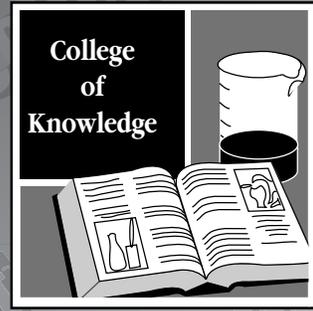


- 1) Obtain required supplies and safety gear.
- 2) Identify stain if possible.
 - a. Utilizing spotting chart, choose correct chemical.
- 3) Pick up any large particles of dirt.
- 4) Apply spotter around outer perimeter of stain, then fill in area.
- 5) Agitate with blunt end of a plastic carpet spotter brush; always direct brush strokes towards center of stain; wipe brush handle clean and put aside.
- 6) Using a clean white cloth, apply pressure in a blotting fashion to transfer the stain from carpet to cloth.
- 7) Repeat steps 3 - 6, if needed.
- 8) Rinse affected area with clean water and sponge. Blot dry and lift nap with carpet brush.
 - a. If stain is unidentified, begin with a solvent spotter and rinse.
 - b. If solvent spotter is ineffective, utilize an organic spotter and rinse.
 - c. If unsuccessful with organic spotter, choose a tannin spotter and rinse.

Upright Vacuum Method



- 1) Collect all equipment and safety signs
- 2) Post "Caution" signs
- 3) Vacate area of obstacles, if necessary
 - a. Include walk-off mats and soil/dirt/filth such as gum
- 4) Plug vacuum into 3-prong grounded outlet
 - a. Inspect power cord for broken or worn insulation
 - b. Be certain that all 3 prongs are present on power cord
 - c. Insure that sweeper bag is not full
- 5) Begin vacuuming at wall edge
 - a. Utilize side of vacuum with "edge cleaning" capability if so equipped
 - b. Utilize the "lawn-mower" method of long, overlapping passes if area to be swept is large
- 6) Replace all furnishings to original location
- 7) Replace all equipment



Appendix



Fifth Generation Carpet Cross Section

Dry Foam & Friable Powder Time Lapse Exhibit

