



# MID-AMERICAN RESEARCH CHEMICAL

2470 14th Avenue, PO Box 927, Columbus, NE 68602-0927 Phone 402-564-7104, Toll Free 800-228-8508 | Website www.marc1.com

# **PREVENTIVE MAINTENANCE:**

Reduce or prevent soiling of the carpet with these three elements of preventive carpet care:

- 1. Catch Dirt at the Door
- 2. Remove Loose Soil Frequently (Vacuuming)
- 3. Spot Carpets Effectively

# **CARPET FIBER TYPES:**

The largest selling type of commercial carpet consists of nylon pile yarn. Nylon carpet has developed and improved over the years. Each succeeding breakthrough in nylon carpet manufacturing is called a "generation".

# The Five Generations of Nylon Carpet are:

- **Generation 1:** Delustered or dull fiber. Round fiber in cross-section.
- **Generation 2**: Soil-hiding. Multi lobal, or multi-sided fiber in cross-section. These fibers produced static electricity.
- Generation 3: Anti-static, multi-lobal, soil hiding.
- <u>Generation 4</u>: Stain and soil resistant. Covered with a coating of fluorocarbon similar to Scotch Guard or Teflon. Anti-static, multi-lobal, and soil hiding.
- <u>Generation 5</u>: Stain resistant, anti-microbial, anti-static, multi-lobal, and soil hiding. These fibers are anionic, or negatively charged, and should be cleaned with anionic or non-ionic cleaning solutions (not cationic solutions). Dry cleaning solvents may cause the stain repellant to lose its efficacy.

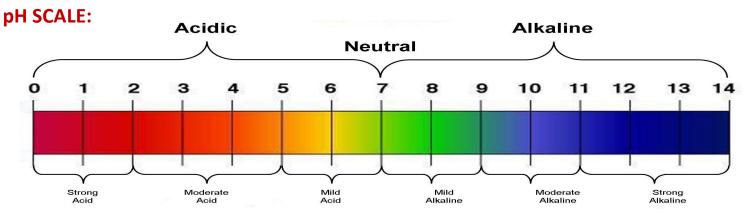
## **Three Other Types of Carpet are:**

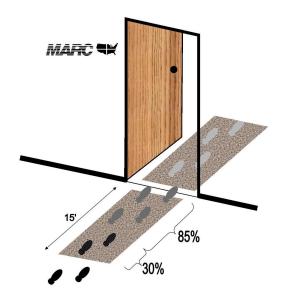
- Polypropylene (olefin): A synthetic pile yarn fiber used extensively for outdoor carpeting.
- <u>Polyester</u>: An inexpensive carpet pile yarn that is used principally in residential installations.
- <u>Wool</u>: A minor (1% of the market) but important fiber in carpets is the oldest carpet fiber, wool. Wool is beautiful, expensive and must be maintained properly and carefully. When cleaning wool carpet, extreme care should be taken to avoid over-wetting and high alkaline cleaners. Improper chemicals on wool carpets cause "alkaline browning discoloration". Browning is an easily remedied condition when a "brown-out" treatment is applied to the carpet. Over-wetting a wool carpet can cause jute-bleeding discoloration from backing yarns used in carpet weaving process.

# **CARPET TIPS AND IMPORTANCE OF pH:**

Find out the generation of the carpet using a simple test. Put a couple drops of water on the carpet, if it absorbs it is generation 4 or older. If the water remains on top, then it is generation 5 carpet.

In order to prevent damage to carpet, the carpet cleaner should leave the carpet as close to a pH of 7, on the pH scale, as possible. The manufacturers of all stain resistant and 4th or 5th generation nylon carpets require a cleaning solution with a pH of 10 or below. Also, the major fiber producers on most nylon carpets require a water temperature of below 150°.





# **CARPET CLEANING AND PROTECTING:**

- <u>Carpet Spotters</u>: All stains are either water soluble or solvent soluble. Stains are neutralized by using a spotting agent of the opposite pH value of the stain.
  - Water-soluble stains are neutralized using alkaline and acid based spotting agents.
    - **Neutralize acid stains** by using an alkaline spotting agent. Alkaline spotting agents take a minute or so to work.
    - Neutralize alkaline stains by using an acid-spotting agent. Acid spotting agents work very quickly.
  - Solvent soluble stains require solvents to redissolve the stain and release it from the carpet.
    - **Some stains have no pH** because they are waterless stains. You must use a neutral product (solvent) to remove these stains.
- **<u>Dry Foam Cleaning:</u>** Dry foam is massaged into the carpet using a brush attached to the foam machine, and then is removed into a vacuum shoe. Some machines are equipped to do this in one pass. The shampoo used in the dry foam machines breaks down greasy soils, absorbs some sandy soil, and is removed through the vacuum process.
- Extraction Cleaning: Most carpet fiber manufacturers and carpet mills recommend periodic, thorough cleaning of carpets performed by well-trained and experienced carpet cleaning personnel. Hot water extraction cleaning steps include:
  - 1. Vacuuming the area to be extracted thoroughly before use of extraction equipment.
  - 2. Application of a pre-spotter **MARC 226 Bio-Zyme** on heavily soiled areas prior to extraction and wait the recommended time before beginning the cleaning process.
  - 3. Use of the extraction process to clean deep, embedded soil using MARC 247 Xtractor, MARC 702 True Green Extractor. Avoid over-wetting the carpet. With wool carpet, care must be taken with wool carpet not to over-wet the fiber and cause shrinkage, and the manufacturer of the wool carpet should provide information about the proper cleaning solution.
  - 4. Drying carpets as quickly as possible. Speed drying is aided by the use of carpet-drying fans.
- Carpet Sanitizing Cleaners: To control odor-causing bacteria levels it is necessary to use an EPA registered Carpet Deodorizer MARC 10 Quatra-Cide. To guarantee that you are using a carpet deodorizer which reduces bacteria when you extract a carpet, check to see that it contains an EPA number on the bottle. Be sure to follow label instructions carefully. It is a violation of Federal Law to use an EPA registered product other than as directed on the label.
- <u>Carpet Protectors</u>: Applying MARC 204 Defender can offer real tangible benefits in carpet-cleaning program. Carpet protectors significantly reduce the amount of various types of soil accumulating on the carpet fibers. If a carpet is soiled it is necessary to clean it thoroughly with an extraction process before applying a carpet protector.

## **AVOID BROWNING:**

Browning" is a condition that sometimes occurs after the cleaning operation when the carpet has dried. It may appear as a yellowish brown spot. It can be caused by either of two conditions. Over-saturation of soaps or cleaners; or over-saturation of too high pH, alkaline detergent or cleaning solution.

- Be sure to shampoo or extract with a solution with a pH below 10.
- Color change is a chemical reaction to either an alkaline or an acid agent. Blue carpets usually turn pink and green carpets usually turn blue. Applying a spotting agent of the opposite pH can reverse this color change.
- Color loss is a chemical reaction that allows the dye to be removed by the cleaning process. The dye actually leaves the fiber and it cannot be reversed.
- If a chemical with a higher pH than 10 is used, it will void the guarantee of these carpets from the manufacturer.
  High alkaline detergents and shampoos will also damage wool carpet. On other types of carpet a pH of 12 is the maximum that should ever be used.
- Carpet pile fibers are dyed in acids with a pH of 2. That is why high alkaline cleaners may cause alkaline browning of light pile fibers.



#### **GENERAL SPOT AND STAIN REMOVAL RULES:**

- Apply water before and after most spotting procedures, except for inks!
- Spot inks on the solvent or dry side.
- Generally rinse all spotting agents free from the carpets as these can set up their own stains if left in the fabric.
- Remove obvious spots from the carpet before shampooing or extracting.
- When in doubt concerning loose dyes or sensitive colors or fabrics, it is wise to first test the spotting agent in an inconspicuous area of the carpet.

	M-17	M-119	M-120	M-157	M-208	M-226	M-256	M-283
ALCOHOLIC BEVERAGES			x					
BEER	X							
BERRIES	Х							
BLOOD	X				X	X		X
CHEWING GUM		X						
CHOCOLATE	Х		X	X	X	X		
COFFEE	X		X					X
FRUIT JUICE	X							X
GREASE	X		X	X	X	X	X	X
GUM							X	
INK (avoid water)	Х		X					X
KETCHUP	X		X		X	X		
KOOL AID	X		X					X
LIPSTICK			X		X	X		
MILK				X				
MUD			X	X				
MUSTARD	X				X	X		
OIL			X		X	X		X
SOFT DRINKS			X					X
TAR			X				X	
TEA	Х		X					
URINE	Х		X	X	X	X		
VOMIT				X	X	X		
WINE	X			X				Х

#### **MID-AMERICAN RESEARCH CHEMICAL**

Rev. 2024-06