

Carpet Spot Cleaners: What to Use When

Spots and stains on carpet consist of a myriad of substances. Spots tend to mask, dull and deluster the appearance (color) of a carpet, while actual stains cause either a loss or gain in the existing color of a carpet based on the type of staining media, which can come from solid, liquid or gas sources. For simplicities sake, this Newsletter will refer to all dropped-on, spilled-on and tracked-on substances simply as “stains”. Other stains, such as those associated with cleaning activities (yellowing, reappearing spots and re-soiling) will not be covered here. In this same token, cleaning will be referred to as simply “spot cleaning”.

Post dyed fibers will have a tendency to be receptive to staining from substances containing acid dyes because the fiber is engineered to be receptive to similar acid dyes used in manufacturing. A carpet’s exposure to acid dyed substances results in an addition to the existing dyestuffs of the carpet, causing a dark stain to develop. Acid based stains refer to staining medias with a pH of 6 or less. The lower the pH the more acidic a substance is and the more likely it will be to cause a stain. Conversely, alkaline substances can evoke a reduction reaction in the carpet’s dye stuff (i.e., a color loss), causing a light colored stain to develop. Alkaline stains refer to staining medias with a pH of 8 and higher. The higher the pH the more alkaline a substance is and the more likely it is to cause a stain of this nature. Although harsh acid and alkaline stains are often viewed as the stuff that causes irreparable damage, in many cases, the use of certain select stain removal products and procedures can do much to remedy many stains.

Most common staining medias are water-based household food and beverage substances that respond favorably to readily available and convenient to use detergent cleaning solutions. However, other less common staining medias require the use of other spot cleaning agents. The list below is a general guideline listing the five categories of spot cleaners and the type of stains they are designed to clean.

Volatile Solvents: solvent soluble stains such as oil, grease, soot, and paint. The term “volatile refers to the fast evaporating nature of these solvents. Solvents can cause delamination to occur in carpets with a latex laminated secondary backing. Never apply solvents directly to the carpet or attempt to saturate a carpet during spot cleaning.

Note: Citrus Based Solvent Spot Cleaners derived from natural citrus (orange) oils can be used when the use of solvent spot cleaners are not permitted. These biodegradable spot cleaners are also very effective in cleaning oil based stains.

Detergent/Water: water-soluble stains such as soft drinks, Kool Aid and coffee, food and condiments. Detergent/Water spot cleaners consist of various surface acting agents (surfactants) that in simple terms work by neutralizing acid-based soils and by converting certain oily stains into soap.

Enzymes: protein based stains such as milk, egg, vomit, and blood. Enzyme spot cleaners contain live bacterial cultures that work by digesting protein based stains during the prescribed dwell time. Consumers should be forewarned to avoid using products consisting of proteolytic enzymes since they can induce enzyme allergies.

Oxidizers (e.g. hydrogen peroxide): organic stains such as wine, fruit juices (not fruit drinks), and urine. Strong oxidizers are used when detergent/water fails to remedy the stain. The carpet must be spot cleaned in a small inconspicuous area first since oxidizers can cause color loss in carpet and can even cause fiber degradation to occur.

Reducing Bleach (Rhit dye removal: synthetic food dyes found in coffee, soft drinks, etc. These products are used when detergent/water fails to remedy the stain. Reducing bleach can cause color loss to occur. Pre-test the carpet in an inconspicuous area first before proceeding to clean a stain.

I use this reference as a “general” guideline, because there are certain considerations that must be taken into account when cleaning different type stains. A good example here would be cooking grease. Although solvent spot cleaning is normally recommended, by using a small, portable extractor a high pH detergent (above 12.0 pH) can chemically convert cooking grease, which is not effected by water, to a water soluble soap! In general, because soils are attracted by acid and many spilled substances have an acid pH, spot cleaners are usually alkaline in nature. The use of low pH spot cleaners comes with a caveat since it can cause dye bleeding to occur.

Stain removal requires good cleaning techniques as well as the use of proper spot cleaning agents. You must be careful not to over wet the carpet with the spot cleaner, blot the stain when cleaning, and dry blot after cleaning to be certain to remove as much residue as possible. This often requires the use of a clean, white absorbent towel, folded at least ½” thick placed over the cleaned spot and weighted down to sit overnight to absorb still remaining residues from cleaning. In certain cases where a fresh, heavy spill has occurred and a professional carpet cleaner is required, more effective spot cleaning can be obtained by leaving a moist, weighted towel on the spot overnight. This procedure helps prevent the spill from penetrating down to the pad and subfloor level where it is much more difficult to remove and more likely to promote wicking, a naturally occurring problematic condition associated with reoccurring spots after cleaning.

Manufacturers of carpet care products have taken advantage of the mechanics involved in wicking by incorporating these mechanics in their heat transfer cleaning procedures used to remove acid dye and natural dye stains by chemically and thermodynamically activating the stain so that it will wick from the carpet and transfer to another material such as a terry cloth towel.

Carpet manufacturers often include spot cleaning guidelines in their product literature. These guidelines are based on the use of common household products that are mixed by the consumer using “bathtub chemistry”. The cleaning products recommended are based on tested and proven product mixes used to form the desired cleaning solution and stem from the manufacturer’s desire for the consumer to be able to use readily available resources for their spot cleaning needs, and to be able to do so quickly. These spot cleaning agents are not meant to replace professional spot cleaning products that can be multi-faceted in their cleaning capabilities, more effective, and formulated to leave the least amount of residue. Consumers should be encouraged to contact the carpet manufacturer’s Technical Services Dept. for other spot cleaning recommendations if they encounter a stain that does not respond favorably using the manufacturer’s recommended cleaning solution.

Encountering stubborn stains can be the fuel needed to cause a consumer to view the manufacturer’s stain warranty as material better suited for use in a punch line, something to demonize, or as guarantees written in pencil that can be easily erased. There is no one elixir available to clean all types of stains, or one that can account for improper spot cleaning procedures. It is imperative that consumers use the right product, right mix and right amount of spot cleaner, and perform spot cleaning as soon as they notice a stain. Today’s carpets are engineered to be very durable to the demands of every day use and are very easy to care for. However, like other fine products made from the highest quality materials and latest technologies, proper maintenance assures that a carpet will perform up to the high standard expectations of the manufacturer for many years of use.

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