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MISCONCEPTIONS ABOUT SPOTTING WITH ACID SPOTTING SOLUTIONS

Perhaps you could file this article under "Misconceptions That Won't Go Away". The facts are that carpet cleaners (yes, even those who have gone to every school) seem to continue to be befuddled by spot removal chemistry. They know the difference between the definition of a spot and stain. Most even know the mechanics of the pH scale. All seem to have a favorite product that they swear by.

In our role as consultants to major fiber producers for problem spot and stain removal from warranted carpets, hardly a day goes by that a "trained" cleaner doesn't call with a problem concerning a spot which in theory, requires the use of an "acid" spotter to remove. Why is it that twenty-five years after the introduction of spotting kits, and five years after the introduction of "stain resistant" carpets, that cleaners continue to have problems with the same kinds of spots? We're not talking about dye altering spills like Kool-Aid® and mustard. We're talking about common every day spots and spills such as coffee, tea, soft drinks, fruit juices, urine contamination yellowing, chocolate milk and others. There is no doubt with the advent of super power charged truck mounted equipment and powerful prespray cleaning solutions, that the art of spot removal suffered. But still, most conscientious cleaners still try and remove many of these types stains with often mediocre success. On top of that, often when success is achieved, wicking causes the stain to come back.

The problem here lies in misunderstanding the chemistry behind "acid spotters". One of the causes of this are many of the branded and generic acid spotting solutions that are still on the market. When the professional cleaner is sold a product that is an "acid spotting solution", he/she assumes it will remove the spot. Another cause of this is that cleaners who are using citric acid or acetic acid thinking that's all they need for an acid spotter. Finally, too many cleaners assume an acid anti-browning agent will do the same thing as an acid spotter.

Let's take a closer look. Most of the carpet that we are trying to get a spot out of is nylon. Nylon is naturally water resistant. If you apply a mixture of citric or acetic acid and water to nylon to try to remove a stain that has penetrated the nylon fiber, the fiber has a tendency to naturally resist the chemical. If a stain has penetrated the carpet fiber and the solution designed to remove it cannot, success is obviously limited. A second difficulty is the use of anti-browning agents for spot removal. Think for a second about where browning occurs - usually on the tips of the fiber. A browning correction chemical designed only to address a problem at the tips of the fibers. It will not have any penetration agents, surface acting agents or drying enhancement agents in it. As we will discuss further, those are the most important ingredients in an effective spotting solution. A third difficulty is in the spotting and staining material itself. Tannin stains such as tea and coffee are rarely just the tea and coffee. Preservatives and artificial coloring are often added by the manufacturer. The consumer often adds cream and/or sugar or sugar substitute. This makes the problem one other than just one that needs an acid spotter.

Urine contamination yellowing warrants a specific discussion. There are two causes of this yellow discoloration from urine contamination. One is the natural yellow dye that occurs when the urine is excreted. The other is the discoloration that occurs

after the alkaline salts in urine attack the acid dye structure of the fiber. Couple with these two factors the fact that urine naturally bonds itself to the fibers, is often undetected for a long period of time, and is excreted at a hot temperature, its not hard to understand why removing this yellow discoloration can be so tough.

So what's the solution? Our customers pay us to remove these spots and stains. First, cleaners should quit depending on just citric or acetic acid to do the job of an acid spotter. Frankly, they don't work well enough or often enough. Second, true professionals should realize no matter what the label says that an anti-browning agent won't serve very well as an acid spotter. Finally, examine what does work. In order for an acid spotter to work, it needs to have the right kind of ingredients. It needs a slight amount of surfactant. In order to act upon a fabric surface, we need a surface acting agent. In addition, a surfactant allows a material to be easily rinsed. It also needs penetrating agents: i.e., chemicals that help penetrate into the fibers so the "acid" can properly neutralize the staining material. Finally, since a spotting agent is often not fully rinsed from a fabric, it needs additives to help it to dry more rapidly.

In order to have success at neutralizing the alkaline salts and discoloration associated with urine contamination, the cleaner needs to have an acid spotting agent that is also designed as a urine pretreatment. It will contain all of these ingredients we have talked about plus agents designed specifically to counteract urine contamination.

So where does a professional cleaner find these urine pretreatments/acid spotting solutions? Look on the chemical labels for information that indicates it has an acid additive, surfactant, penetrating agents, drying enhancement agents, and urine counteracting agents. Often, they will be identified as an acid spotter and urine pretreatment. One fiber producer recently tested a wide array of "branded" acid spotters, and found only two that met their criteria for successful stain removal. Don't settle for any "old" acid spotter and your results will improve dramatically.

One final thought, since tannin stains and protein stains often contain multiple spotting challenges, don't forget if you're having trouble getting the results you want to use your knowledge of the pH scale. First, apply your acid spotting solution. Allow ten minutes of dwell time before rinsing. Then apply your alkaline spotter. No, not just ammonia. A formulated alkaline spotter. Allow ten minutes of dwell time and rinse. Your results will improve dramatically. A happier customer will be the result.

You never knew spotting could be so complicated. It doesn't have to be if you've got the right products to do the job.

About The Author:

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