Green Encapsulation Carpet Cleaning Products

Note: this is an extract from an article written by Michele Wanke

Green encapsulation carpet cleaning products are hot-ticket items that combine two of the most popular trends in the carpet care industry—encapsulation technology and environmentally friendly materials. The former is sweeping the market, and has been especially embraced by professional carpet cleaners.

About Encapsulation Carpet Cleaners

Thanks to the encapsulation process carpets can stay cleaner and last longer. The secret is a revolutionary technology, which suspends dirt, oil, and detergent residue, so that standard vacuums can remove it. Encapsulation chemicals differ from traditional carpet cleaning products in that the latter is designed to emulsify dirt. This process often leaves behind a sticky residue on carpets, which in turn, makes them susceptible to more dirt in less time.

In contrast, encapsulation chemicals surround each particle of dirt and crystallize it, so it repels other soil. The dirt particles, then rise to the surface of the carpet and are easily removed with normal vacuuming. This process helps carpets stay cleaner because it does not leave behind a layer of sticky residue. Encapsulation carpet cleaners also incorporate acid dye resistors, surface tension modifiers, and polymers, which eliminate the need for rinsing.

Going Green

In recent years scientists have come up with a way to make the encapsulation process environmentally friendly. New "green" encapsulation carpet cleaning products are safe to use and are among the most effective cleaning products on the market.

Unlike standard encapsulation chemicals, the "green" variety contains no:

• Alkyphenol ethoxylates
• Phthalates
• Optical brighteners
• Heavy metals
• Ozone depleting compounds

• Carcinogens

In addition, green encapsulation carpet cleaners don’t contain aquatic or oral toxins, which means you get a product that not only cleans well, but also is much safer to use around humans, animals and the environment.

Benefits of Green Encapsulation Carpet Cleaning Products

Cleaning experts maintain that it will only be a matter of time before environmentally safe encapsulation carpet cleaners replace traditional cleaners. Industry leaders reason that the product's benefits are far too impressive to ignore.

The most noteworthy benefits of green encapsulation carpet cleaners are:

• Powerful Polymers: These detergent polymers encapsulate and suspend ground-in dirt like no other product on the market. The polymers also enhance the efficiency of routine vacuuming, allowing for continued removal of any residual soils after the initial application. This reduces the frequency of wet cleaning and preserves the appearance of the carpet fiber.

• Stain Resistant: Green encapsulation carpet cleaners also contain stain resistors that provide superior protection from acid dyes commonly found in food and other items.

• Surface Tension Modifiers: These chemicals enhance the product's efficiency and are particularly effective in removing oils and greasy dirt found in many commercial carpets.

• Phosphate free: Green encapsulation carpet cleaners utilize products that will not harm the environment. They are free of hazardous air pollutants that can negatively affect indoor air quality, and the special formula does not contain any known carcinogens. In addition, the product contains a light, clean, fresh scent as opposed to unpleasant chemical odors, which are emitted from traditional carpet cleaners.
The Impact of Encapsulation

Teaching carpet cleaning across the country, I am often asked about encapsulation cleaning systems. A common question is, “Where does all the dirt go?” The answer lies in the advancement of the polymer-based cleaning formulations used in encapsulation.

This chemistry provides clean carpet that resists re-soiling and wicking of stains, keeping carpets cleaner for a longer period of time by coating the fiber with anti-re-soiling polymers.

Systems that use fast drying technologies while also limiting volatile organic compounds (VOCs) and residues left behind after cleaning are of primary interest for professionals looking to deliver cleaning that not only improves the visual appeal of the facility but also has health benefits.

The cleaning must be analyzed from a health and indoor air quality perspective that the professional textile cleaner must always consider when employing carpet cleaning systems.

Encapsulation cleaning is a true minimum-moisture method that crystallizes oils and soils. Carpet-cleaning technologies employed today constantly strive to clean carpet better and leave the fiber not only visually clean, but in a healthy condition after cleaning.

Pre-vacuuming carpet with a pile lifter or commercial-grade, high-performance vacuuming system is essential before and after the encapsulation process in order to leave the carpet as clean and healthy as possible.

Similar to carpet protectors, encapsulation cleaning leaves the fiber in a state where oils and soils have a more difficult time attaching to the carpet fibers. Therefore, the majority of soil will be vacuumed away much easier during routine vacuuming after the use of encapsulation cleaning.

There are encapsulation products available with stain resistance added to help prevent future stains. Bridgepoint’s Encapuclean Green Double Strength has proved to deliver excellent results and continues to grow in popularity.

Your local Interlink Supply distributor will be well versed in the science and application methods used for encapsulation cleaning.

**Equipment Specifications and Applications**

Most encapsulation machines use either a rotary brush or a counter-rotating cylindrical system because agitation and the function of the polymer-based chemistry are the keys to crystallizing the soil for easy removal.
Many encapsulation machines have a solution tank with a shower feed device that dispenses solution into a rotary or cylindrical brush that agitates solution into the carpet.

The polymer solution dissolves, suspends and emulsifies the soil; the brush, a bonnet or a pad can also be used to dislodge soils from the carpet yarns. The polymers will dry brittle with the soil and oils surrounded and ready to be vacuumed away within 20 to 60 minutes after the application and proper agitation of the cleaning solution.

There are machines that use a combination of different pads for various soiling and carpet construction characteristics. Rotary machines that use shampoo brushes, fiber pads and bonnets are available. Check with the manufacturer before choosing the type of equipment and brushes or pads you will use. Carpet mills will recommend a specific type of machine or cleaning system to maintain carpet warranties.

**True Low-Moisture Carpet Cleaning**

As stated above, encapsulation cleaning is a true minimum-moisture method, an excellent interior maintenance system.

For carpets that exhibit severe soil-load conditions, hot-water extraction is essential to use in combination with low-moisture maintenance systems.

Encapsulation cleaning in large facilities not only results in significant improvement in appearance but also reduces facilities maintenance costs and limits certain forms of liability, especially when it comes to slip and falls. The faster a carpet dries, especially in a public area, the better.

Low-moisture carpet cleaning systems limit VOCs because of this fast dry time. Encapsulation chemistry minimizes re-soiling, creating a healthier indoor environment, especially when complemented with periodic hot-water extraction cleaning.

**Superior Production Rates**

There are encapsulation machines that can clean 3,000 to 5,000+ square feet per hour, translating to superior production rates; as you might guess, profitability is excellent even in a very competitive market.

There are no alternative fuels to purchase. Technicians quickly become very proficient using encapsulation equipment, making training for companies a little easier on the pocket book.

It’s a win-win for all concerned. The facility receives clean carpet that stays cleaner longer. The contractor can realize a good profit. Technicians find the system fun and easy to use.

Take into account the environmentally friendly aspects of the system, and encapsulation cleaning should continue on its path to a bright future.
Hot-Water Extraction and Encapsulation Chemistry

Encapsulation technology is now used in many detergent applications where cleaning residues and cleaning for health is of primary concern. Many detergents and spotters used in hot-water extraction now benefit from encapsulation technology.

End Zone leads the way in detergent rinses that encompass acid-side emulsification coupled with encapsulation polymer technology to avoid wicking and help fibers to stay clean longer. Post-cleaning neutralizing, anti-wicking, acid-side encapsulates are available for both residential and commercial carpet.

The Professional Choice

Professionals must consistently strive to learn and improve, accepting and adapting to changes critical to business survival in today’s unpredictable economy.

Encapsulation is even proving useful for upholstery cleaning.

Do not be afraid to embrace change or to be different. Study encapsulation cleaning; add the system to your cleaning arsenal. Your business will realize increased revenue while achieving our goal as professionals to improve the indoor environment.

To learn more about encapsulation cleaning, go to the “Technical Resources” section here at Cleanwiki.com, Clean Trust (formerly the Institute of Inspection, Cleaning and Restoration Certification) website at www.IICRC.org. The Low Moisture Carpet Cleaners Association at www.lmcca.org is another great resource to learn more about low-moisture cleaning systems.

Your local trade association will often sponsor cleaning classes that demonstrate and discuss encapsulation cleaning systems. Partner with your local Interlink Supply distributor, who provides educational opportunities related to all textile cleaning systems.

Remember, education will unleash your true potential!

Doug Heiferman

Doug Heiferman is owner of DH Seminars, a technical and business development company specializing in marketing and business programs for the professional textile cleaner and restorer. Visit Doug’s web site at www.DHSeminars.net for additional information.