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CHEMICAL TESTING FOR THE CLEANER

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Every carpet cleaner goes through product testing intentionally or unintentionally. Unfortunately, conclusions are generally based on perceptions, not facts. There indeed are differences in performances between chemicals. These differences are the results of diverse ingredients and concentration levels, unique uses or raw material impact a product's performance, varying heat thresholds of the equipment used, dissimilar soils from one geographic region to another region, distinct fiber and construction differences of carpet, unique levels of fluorochemical protection from one carpet to another, different testing methods, and hidden motivations from proponents of different products.

Diverse ingredients reflect the menu of raw materials available to the formulator. Basically a formulator chooses from an array of solvents, surfactants and builders which form the bulk of any cleaning formulation. The quality of these raw materials will be reflected in the end result. A formulator then tweaks formulas with minor selections of any necessary chelating agent, buffering agent, polymers, unique proprietary additives and choice of fragrance. It is similar to a chef working with meat, vegetable, and fruit choices for meals. The quality of the meat, and freshness of the vegetables and fruit will impact the taste of the food. The tweaking reflects the use of marinating, choice of spices, the means of cooking, and other tricks of the trade. More concentrated products will weigh more than less concentrated products, unless a lot of solvents are used in the formula. Solvents weigh less than water, while builders are absorbed into the water without significantly changing the volume of the water. More concentrated products cost more. We have one prespray which makes 9 RTU gallons and one which makes 33 RTU gallons. Routinely we hear that one is more expensive than the other. In fact, one product makes almost 4 times more RTU gallons of prespray, but is only twice the cost.

Every formulator like every chef have their unique combination that make the product work better or the food taste better. Here is where the skill of the formulator can make a difference in a product's performance. The amount of difference can not always be seen in a few cleanings. We have many presprays because there are a lot of diverse situations. Usually, one of our products will work better than another one of our products based on specific situations. Sometimes we are surprised. We have produced a product, which has a unique ability to reactivate soap left in carpet from previous cleaning. We received a call about how good this product worked on a carpet in a Mexican restaurant. This chemical would not have even been recommended to be used in this situation. However, previous cleanings had left a significant amount of soap residue. In this situation, the carpet cleaned up beautifully because the chemical activated and cleaned the carpet with the soap that was already in the carpet. Over time, this chemical would have diminishing returns in cleaning the normal soil load for a Mexican restaurant once the soap residue had been removed.

Diverse equipment from sprayers to wands to the type of extraction equipment will vary the performance of any chemistry. Heat works. If you have great equipment with high heat then performance differences between chemistry will be less obvious. The characteristics of regional soils make some chemistry better in some regions than another. For examples, soil in Florida is sandy, while soil in Georgia has a high red clay component. We developed a new chemical and used another chemical as the benchmark. We worked for

months to make them perform equally in soils from Utah. We had the formula tested in North Carolina and our formula blew away the benchmark in performance when red clay soils were introduced in the mix.

Sometimes distinct fibers and/or construction caused cleaning differences. Oil is more readily removed from nylon than it is from olefin. Knowing the fiber helps you evaluate the cleaning solution. Probably the most important factor that impacts cleaning is the level and type of fluorochemical protection from one carpet to another. We tested red stain removers and organic stain removers hundreds of times over the course of three years. We found that on normal fluorochemical and acid dye resistor treatments, most red stain and organic stain removers worked. Once we compared results on white undyed and unprotected nylon, then the best products easily stood out. In most cases, 2/3 of the red or organic stains can be removed by most products. The best products, however, can approach 90% success in stain removal.

Different testing methods also can lead to wrong conclusions. I have found that a lot of cleaners will use one product on one job and another product on the next job. Side by side tests are the only cleaning tests that have any validity. Even with these tests, several tests should be performed before any conclusion is reached. Once the conclusion is reached it should be shared in context. Product A worked better than Product B in over 20 side by side cleaning tests. I live in Florida and clean with a ProChem Everest. The tests were done mostly on nylon carpet in residential settings. Product A works better for this cleaner recognizing his region, equipment, and residential setting with this type of carpet. This is all you can conclude. I have seen a lot of certainty in product evaluations on the bulletin boards, which I know from my own thorough testing, is a result of incomplete or inadequate testing.

In summary, product testing is both a science and an art, which takes time when done properly. We do a lot of testing in the lab and in the field. We make adjustments on what we find and try to make it as good as we can. We do not introduce the product if it is not better than the pre-existing formula. We make all new products comparable or better than the existing products that we test it against. Be assured that we do detailed testing and are satisfied before we put Bridgepoint's name on the product. We trust that as cleaner's who endorse another product that you test carefully as well before you put your name on it.

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