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Claim Inspections: Part Three
On Site Diagnostic Procedures

The selection of a properly trained and certified, vastly experienced and well equipped carpet inspector can often be the calming antidote needed by the consumer who has become rooted in hostility based on their inability to remedy what they determine to be a particular problem with their carpet. Inspectors who have the means and are willing to take the time to determine the nature of the claim and educate the consumer in this regard can do much more good than the armchair apologist at the mill or the dull and insipid inspector who greets the consumer with a list of ready-made conclusions.

The good inspector knows that he or she must be an upbeat, confident individual who recognizes that in almost all cases, when it comes to carpet performance related claims there can be no forgone conclusions made. They realize that without doing some type of qualitative analysis, conclusions drawn by them otherwise would lack the back half of the battery.

Our inspector is a good one, he has the allure of certitude, and he has brought with him all the tools of his trade necessary for him to turn expressed concerns into implied facts. He has his black light. With this ultra violet radiation-illuminating device he knows that he can detect urine by its yellow fluorescence (as well as its distinct odor and its pH). He can detect other mineral-based contaminants; he can detect the presence of seam sealer, optical brightener, and iron particulate that results from metal wearing.

Using pH indicator dye or litmus paper strips our inspector can check carpet stains ranging from highly acidic hydrochloric acid commonly found in strong toilet bowel cleaners, to highly alkaline sodium hydroxide (lye) used in oven cleaners, and can associate the pH reading to the carpet fiber's color reduction reaction response (e.g. oxygen bleaches attack red and blue dye stuffs first, typically resulting in a yellow, or orange response).

Our astute inspector will probably carry with him a fiber identification kit of sorts to help him identify the carpet fiber content of the floor covering he is inspecting. This kit will include xylene for olefin (polypropylene)(boiling to dissolve the fiber), formic acid to identify nylon (an 80% solution of formic acid in water), and

m-cresol to identify polyester (4 mls. used in boiling water to dissolve the fiber). This kit will also include a lighter to burn the fiber and identify it by its burning, smoking, and odor-producing characteristics. These inspectors will most likely carry a battery operated 100X or greater microscope to assist him in his fiber identification efforts, such as scales seen on wool (and its hollow medulla center) and striations seen on extruded synthetic yarns. He will also carry an illuminating scanner 5X or greater to help count tufted rows, yarn twists, and the periodicity of the backing weave.

A pile height measurement gauge, expressed in inches, fractions of an inch, and decimal equivalents is another must that our inspector carries. So too is a digital camera with downloading capability, a 500 watt halogen light to check for side match, and a laser square to check for bowing and skewing (Orcon makes a great model for this purpose).

This inspector will also most likely carry a bottle of distilled or de-ionized water sealed with an eye-droplet type (pipette) top, possibly even a similarly sealed vessel containing a proprietary liquid hydrocarbon, to validate the presence of a fluorochemical stain resistant additive.

Other tools of the trade will include pipettes used to collect various residue extracts taken from the carpet to be placed later in petri dishes for evaporation/remaining residue visual and tactile analysis to determine whether or not these residues promote soiling. White cotton crocking cloths (such as those used for the AATCC 165 Wet/Dry Crocking test method) should also be carried. These clothes can be used to show good vs. bad when checking for soiling and dye bleed claims.

A Chatillion Gauge or other similar measuring device is a must to perform tuft bind analysis in the field. However, in the absence of scrap carpet this type destructive test should be done in very discriminating areas, and only when the consumer agrees to allow this test. The good inspector understands that while this type test can give a good indicator of tuft bind properties it should never take precedence over tuft bind testing done on uninstalled carpet using more precise testing equipment (e.g. an Instron).

Carpet is major investment for the homeowner. With this investment come certain expectations in regard to the long-term appearance and performance of this product. Therefore, consumers expect and deserve quick response and concise reporting by trained and certified inspectors when faced with a problem. Granted, many of these complaints are without merit. However, knowing what caused the problem, what remedial actions are required to make it go away, and what preventative measures are required to avoid it in the future can't be answered accurately without a full understanding what the problem really is. Unfortunately, when faced with the unknown or feeling as if they are caught betwixt and between some inspectors may feel inclined to punt when in the

absence of knowing, they might invent a cause, and even write what they *think* the contracting party wants to read! Carpet manufacturers want true *independent* inspectors who's sole purpose is to do what is required; including a Homeric chase, to establish facts based on sound principles and technical know-how.

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