Flame Retardant Discoloration Correction!

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The problem of upholstery fabric discoloration from flame retardant plagues our industry with increasing frequency. Down filled cushions are more commonly used in upholstery than ever before.

While we've spent the past several years warning cleaners of how to detect this problem, little was known on how it might be corrected.

In this article, I am sharing a method with you that works SOMETIMES, but certainly is worth attempting before you pay an expensive damage claim.

1st - Understand The Cause of the Discoloration:

When using down (feathers) to fill a cushion, the ticking (cloth bag) that holds the feathers must, by law, be treated with flame retardant. For many years, the material used for this purpose was insoluble and very stable. However, several years ago furniture manufacturers began to use an acidic flame retardant that is water soluble, and in the presence of any moisture, including just high humidity, contaminates and discolors upholstery fabric. This chemical contamination causes nature fiber white fabrics to turn brown, or dyed textiles to turn red, over time.

What has been particularly damaging to the cleaning industry is that this discoloration accelerates, and becomes even more noticeable after cleaning.

The cleaner invariably has been blamed for the issue!

STRONG RECOMMENDATION:

To stay out of trouble, the best course of action was (and still is) to inspect all down filled cushions carefully to see if any discoloration has begun, **and** to test pH of the ticking to see if it registered on the acidic side of the pH scale. **If there is any indication of this condition, it is best not to clean the fabric.**

This is an example of what the damage looks like on such a cushion:

2nd - Follow This Corrective Procedure:

There is a corrective procedure that has proven to be effective in many cases. If you are faced

with this issue, follow these steps:

(Pic: FlameRetDamage)

#1. Spray with straight, household ammonia. Do not use lemon scented or sudsy ammonia. When you spray this on the fabric, you should see immediate results. However, due to the self neutralizing properties of ammonia, you cannot stop here, or the discoloration may return.

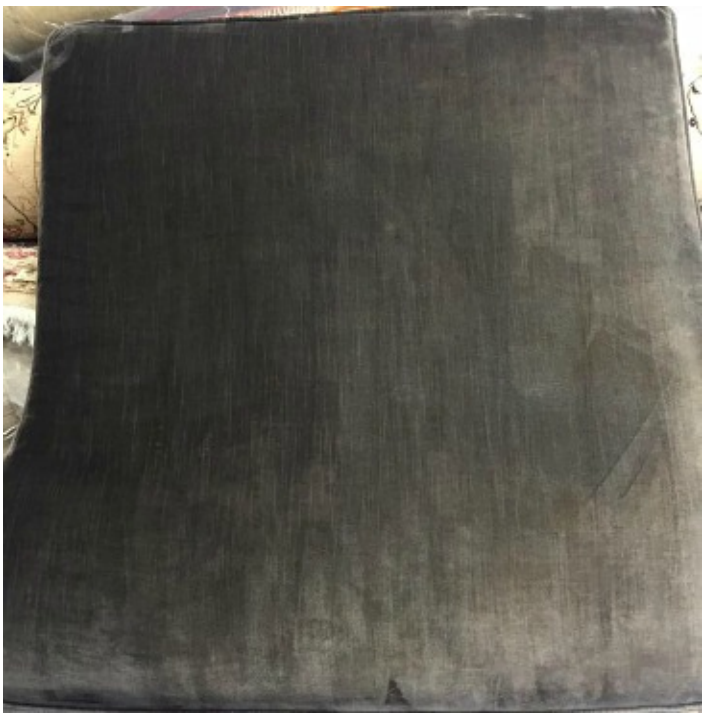
#2. Mix a solution of sodium bicarbonate ("baking soda") and warm water. Add the sodium bicarbonate to water and stir until it can no longer hold any more in suspension.

#3. Spray this solution on the affected areas of the fabric lightly, and brush it in. The sodium bicarbonate will leave a residue that will maintain an alkaline pH and should prevent the return of the discoloration.

#4. When the fabric dries, brush and vacuum away any visible residue of the sodium bicarbonate. This residue may be difficult to remove. Light rinsing may be needed, but if you remove too much, or the fabric becomes too wet, the discoloration may reappear.

#4. Warn your customer that the problem is inherent in the construction of the furniture, and over time, may reoccur.

This is how the fabric will appear after correction:



(PIC FlameRetCorrect)

Important Notes: Pre-Inspection With a Pre-Understanding is a Must

#1 - This problem is pre-existing, and would happen over time regardless of whether or not you clean the fabric. The customer must understand that it is not a problem you caused.

#2 - You should not attempt to clean a fabric that has the risk of this discoloration. This corrective procedure does not always work, and you should not see it as a reason to proceed and fix it later. Doing so would be akin to deliberately browning out a raw cotton fabric, then attempting to bleach it out later and hoping for the best.

#3 - The process is time consuming, and should be performed at your location. If you are forced to do it at your customer's location, you may be visiting several times.

#4 - It is difficult to remove sodium bicarbonate from fabric. The repeating brushing and vacuuming that is needed to remove the residue may damage the fabric.

Conclusion:

Your best course of action remains to inspect, test, and refuse to clean fabrics that have been damaged by flame retardant. Should you be unfortunate enough to have to attempt correction, this method MIGHT work for you, but prevention is a far better course of action than attempting to fix the problem later.