

## LIGHT-INDUCED YELLOWING

### YELLOWING IS COMMON

If we think about it, the phenomenon of yellowing is quite common in our environment. Many things that start out as white or light colors eventually shift toward yellow as they age (think of the discoloration of old newspapers).

The process of yellowing usually involves oxidation. Oxygen in the atmosphere is continually combining with and gradually breaking down virtually everything we see, though at very different rates. Sunlight and heat accelerate this process.

It should be no surprise, then, that some interior fabrics undergo the same type of process as they age and are exposed to various environmental conditions.

### SILK IS ESPECIALLY SENSITIVE

Silk fabrics are, perhaps more than any other, susceptible to color changes caused by exposure to light. It is well known that dyed silks will fade upon exposure to sunlight. But did you know that white silks show an equally dramatic sensitivity to light? Instead of fading, these fabrics will tend to yellow.

The yellow color change of silk is sometimes referred to as a “*natural patina*” (that’s creative marketing at its best). Unfortunately, this new color is not always welcome.

The amount of sunlight needed to start the shift toward yellow is sometimes amazingly small. The fabric on this page was exposed

to only 15 hours of direct sun. Imagine the sofa or chair that sits in a sunny window over a period of years.



**Original**



**Sunlight Exposed**

White silk can also be damaged by normal atmospheric oxidation in rooms, which receive little or no sunlight. This is usually a much slower process.

## **FIBER DAMAGE**

It is important to remember that yellowing of silk is actually a sign of fiber degradation -- the fiber is being chemically changed and is getting weaker. Fabrics that are severely weakened are then susceptible to tearing, especially when they are cleaned. (This is one more reason why cleaning companies must be particularly careful when they inspect furnishings prior to working on them.)

## **WHAT ABOUT ANTI-FADE TREATMENTS?**

FIBER-SEAL continues to test chemicals that are advertised to offer protection from fading and yellowing. Without exception, our tests show that these products are ineffective. The consumer would be better off investing in one of the various methods (window films, screens, shades, etc.) that

reduce the amount of sunlight entering the room.

It is also important to flip and rotate loose cushions on seating pieces so that any discoloration that does occur will do so more evenly. If the cushions are moved only infrequently, the difference between "exposed" and "unexposed" fabric can be dramatic.

## **ON THE BRIGHT SIDE**

The Fiber-Seal Fabric Care System can benefit these fabrics by reducing absorbency, helping to resist permanent staining and ultimately increasing the useful life of the fabric.

**ALWAYS TEST CHEMICALS AND/OR PROCEDURES FIRST ON AN INCONSPICUOUS AREA OF THE FABRIC.**