



# THE THREAD

Unraveling the Mysteries of Fibers, Fabrics and Floor Coverings

## PILE REVERSAL... A Most Durable Dilemma

### A Typical Scenario

The expensive, light-colored saxony carpet you purchased has just been installed and it looks beautiful. The installers did a very nice job; the color compliments your furnishings perfectly and it feels so soft under your bare feet. Life is wonderful!

One day, several months down the road, you notice a "spot" on the carpet that looks a little odd. Irregularly shaped and about two feet wide, if you had kids you would say, "OK, which one of you spilled and which one tried to wipe it up?" But you don't have kids and there is no traffic of any consequence in the area of the spot. You remind yourself to vacuum more thoroughly.

Even with an aggressive vacuuming schedule, the spot seems to be getting more pronounced. Worse, there are now similar areas showing up in other parts of the carpet.

You call the carpet retailer and he comes out and looks at the problem. He says it's something called "shading" and it is not a manufacturing defect, rather it is a well-known characteristic of cut-pile

carpets like yours. He eventually sends you a brochure listing common carpet terms. There, under the word "Shading," you read,

"Shading is a change in pile direction that results in an apparent change in color due to the light reflecting in different ways. Solid color cut-pile carpets will exhibit this more often than textured or patterned carpets. This is normal. Severe cases of shading are also known as pooling or watermarking. This results in a permanent pile reversal that occurs after installation. It has no known cause and is usually confined to only certain areas of an installation. Pooling or watermarking is not considered a manufacturing defect."

Your heart sinks. Life is not so grand today.

### The Basics

When a cut-pile carpet is made, it will usually emerge with all of the yarn tufts in the pile pointing in the same direction, therefore having a uniform appearance. However, any localized alteration in the orientation of

the tufts will result in a visual change in the color of the carpet because light is reflected differently. This apparent color change is broadly referred to as "shading."

Pile reversal, as described in our opening scenario, is a form of permanent shading. This problem goes by several other names as well: pooling, watermarking, pile switch and puddling.



Pile reversal happens in cut-pile constructions of all fiber types. The phenomenon has been observed in tufted carpets, hand-woven Silk Orientals and even coir entrance mats. It can happen in newly installed carpets or it can occur after a more extended period.

**Superior Service, Smart Solutions**

Fiber-Seal Systems • Dallas • Texas • 214.333.9400 • [www.FiberSeal.com](http://www.FiberSeal.com)

---

## Expert Consensus

Though there is much that is still a mystery, there is a body of general information about pile reversal that can be useful.

- It can occur in any cut-pile carpet, rug or mat, including tufted, woven, bonded, knitted or hand-made floor coverings.
- It occurs in floor coverings of all fiber types, including blends.
- There is no evidence to suggest a link between carpet manufacturing processes or components and pile reversal.
- Certain locations can be conducive to pile reversal. There have been instances where an affected carpet was replaced with a totally different carpet, only to have the new carpet eventually develop the same problem. The phenomenon has also been known to occur across carpet seams.

- There is no proven correlation between the way a carpet is installed and any subsequent pile reversal.
- There are no indications that pile reversal is associated with any maintenance method, or with topical treatments.

## A Ray of Hope

Though most mills will not honor claims involving pile reversal because it has never been proven to be a manufacturing-related problem, there is at least one carpet mill that takes a different approach. *Brintons Carpets* (UK), using a special process called "Brinset," offers a twelve-month warranty against pile reversal on certain velvet styles.

Also encouraging, *Wools of New Zealand* has developed a technology called "Trutrac." This process is said to prevent pile reversal by permanently setting the carpet's natural pile orientation through the use of controlled pressure.

## Fiber-Seal Efforts

Focusing on the care of high-end interior furnishings, including plush floor coverings, Fiber-Seal Service Centers have seen their share of unexplained pile reversal complaints over the years. While we do not claim to be able to correct these problems, we continue to document them for further study.

## Need Help With Rug And Carpet Protection Or Cleaning?

Your local Fiber-Seal Service Center is ready to help and just a click away.



<http://fiberseal.com/locations/>