



The backcoat compound is composed of carboxylated styrene butadiene rubber or (SBR). The backcoat compound is designed to encapsulate and penetrate the yarn bundle for tuft bind strength and for pilling and fuzzing resistance. It is also used to laminate the primary to the secondary backing. Suspension agents and frothing agents such as succinates and sodium lauryl sulfate (a product commonly used in hair shampoos) are added to assist in latex polymerization and stabilization.

Many of today's carpet fibers are treated with fluorochemical soil/stain repellants. Fluorochemicals are fluorinated polymer finishes that are commonly used on carpet, upholstery, and other fabrics. Mill applied fluorochemicals are mostly applied to the fiber after dyeing, although some fluorochemicals are actually integrated into the fiber. Fluorochemicals are used to reduce the surface energy of the fibers, making them a less soil attracting surface and less susceptible to many staining agents. Fluorochemicals have excellent resistance to detergents and will withstand several hot water extraction cleanings; however, solvents will remove fluorochemicals therefore, they must be reapplied after solvents. These treatments have also been found to offer some protection from static buildup.

For the vast majority of our population new carpet presents no more of a health concern than any other product used in the home and may in fact be a benefit to individuals with allergies. Of the 20% of Americans who suffer from allergies, 53% are allergic to house dust. Seventy percent of those allergic to house dust are allergic to a mite allergen. Unlike smooth floor surfaces, carpet helps to retain these common household particles, keeping them from becoming airborne from foot traffic and air circulation until they can be removed by vacuuming.

The key to preventing allergic reactions is to keep allergen particles from getting into the breathing zone. For those with allergies the use of carpet with a regular efficient vacuuming and periodic extraction cleaning can make a home a safe and aesthetically appealing environment.

Approximately 1.2 billion square yards of carpet are installed every year.

Complaints per square yard of carpet related to allergic responses are extremely small. Research to date, some going back over 30 years, consistently shows that there are no epidemiological or toxicological studies presenting evidence that exposure to carpet in any environment causes an adverse human health response. In addition, in cases where carpet alone was removed from environments for the purpose of preventing or reducing allergic response, there is no scientific evidence that the allergic condition or response improved. Pathogenic bacteria and fungi, pollens, and non-viable biological debris present a much more significant risk to humans than exposure to carpet or carpet emissions.