

## Knowledge Brief: Carpet Construction for Health Care Environments

### **Choosing the right carpet construction to meet the rigorous demands of the Health Care environment yields a greater return on the floorcovering investment.**

Several factors should be considered when specifying carpet in health care environments, particularly in areas where immuno-compromised patients are housed. First, it is generally accepted that a densely tufted, solution dyed, nylon fiber will provide resilient performance and appearance retention in high traffic areas subject to bodily fluid, food, and pharmaceutical spills. Unlike stock (surface) dyed fiber, solution dyed fiber (dye pigment throughout fiber) is resistant to fading when exposed to bleach based sanitizers.

It is also important to consider the structure of the carpet backing. Conventional broadloom carpets with porous, woven secondary backings (typically used in residential or office environments) may not be appropriate for use in health care environments. Spills on these carpets often seep into and through the backing structure, and in some cases, serve as a reservoir for pathogenic and odor causing bacteria and fungi (even at the padding and subfloor layers). Structured back carpets (such as 50 cm tiles or 2 meter seam sealed roll goods) provide a moisture impermeable backing system which allows spills and particulate contaminants to be more easily removed by vacuum extraction and routine vacuuming.

Antimicrobial preservative treatments are also available for the primary backing layer of structured back carpet tiles and 2 meter roll goods. Treatments such as Intersept<sup>®</sup>, offered by Interface Flooring Systems, serve to inhibit active growth of a broad spectrum of odor and stain causing fungi and bacteria.

Cleaning of carpets in health care environments is best accomplished with dual motor HEPA filtered vacuum cleaners, especially in areas where immuno-suppressed patients are housed. It is also important to consider the cleaner/sanitizer chemistry, concentration, and prescribed surface contact time when using warm water extraction to sanitize carpet in health care environments.

Additional benefits of structured back carpeting in a health care environment include superior aesthetics and noise absorption. Structured back products are less susceptible to shrinking, stretching and development of ripples (i.e. they are more dimensionally stable). Structured back carpets with low pile heights provide less resistance to rolling traffic (carts, beds etc.) When compared to conventional broadloom carpets with soft pad underlayments.

Contaminant control (especially biologically based spills), ease of contaminant removal, and sanitizing properties yield a product that performs better and lasts longer. When coupled with superior aesthetic and ergonomic properties, these attributes build a strong case for the added value achieved through the use of moisture impermeable, structured back carpet products in health care settings.