

Specification for Antimicrobial Preservative treatment in Carpet Tile

- 1) The preservative should be registered with the EPA and the registration number should be supplied.
- 2) The preservative must have a stamped EPA Technical Bulletin stating that it is approved for use in carpets.
- 3) The preservative should be incorporated into the primary backing of the product during the manufacturing process, not topically applied to the carpet fibers.
- 4) The preservative must not be metallic or halogen based (No zinc, copper, tin, chlorine, bromine, etc.). Blends of amine neutralized phosphated esters are preferable.
- 5) The preservative should have low water solubility (30 ppm or less) for good durability.
- 6) The preservative should be low in toxicity (not less than an oral LD₅₀ of 2.4 g/Kg).
- 7) The antimicrobial treated carpet when new must pass GSA parameters for treated carpets via AATCC method 174 parts II and III. Initial performance must be 90% reduction of the microorganisms (*Staphylococcus aureus* 6538 and *Klebsiella pneumoniae* 4352) and no fungal growth on either the primary backing or fibers both on washed (AATCC method 171) and non-washed samples.
- 8) The antimicrobial treated carpet must maintain, for the warranted life of the carpet, a minimum of 90% reduction of the microorganisms (*Staphylococcus aureus* 6538 and *Klebsiella pneumoniae* 4352) listed in AATCC method 174 part II when the carpet is maintained as specified. Additionally, the antimicrobial treated carpet must maintain a "no macroscopic growth" rating against *Aspergillus niger* 6275 **at the primary backing** in accordance with AATCC 174 part III.
- 9) The preservative must be environmentally responsible i.e. (biodegradable and not toxic to non-target species).
- 10) Efficacy of the preservative should be documented in professional peer reviewed scientific publications.