An antibacterial foot sweat pad was designed and produced by using materials of standard disposable absorbent hygienic products. Topsheet layer of the pad was modified by two volatile oils; cinnamaldehyde and geraniol and a standard zinc-based synthetic antibacterial agent. Physical properties of the sweat pad was arranged according to the sweat disposal amount and dimensions of a foot. Besides antibacterial performance of the topsheet layer of the pad, surface characteristics (friction test), bending rigidity of the modified topsheet layer, liquid absorption and transfer characteristics of the pad were also investigated. Subjective forearm test was conducted to determine effects of antibacterial coating materials on coolness and dampness to touch sensations created by the pads in dry and wet forms. According to the results, cinnamaldehyde created maximum antibacterial activity, which is better than the commonly used synthetic agent, on topsheet layer of the pads and geraniol had an acceptable performance. But cinnamaldehyde treated topsheet fabric became stiffer, rougher and its liquid absorption characteristics deteriorated significantly. Zinc-based synthetic antibacterial agent created higher coolness and dampness sensations during skin contact according to forearm test results.

Keywords:
Antibacterial, Foot sweat pad, Volatile oil, Liquid absorption/transfer, Forearm test