Applications of Self-Healing Materials

Alena Dannehl¹, Amelie Buhr¹, Angela Sanchez Leyton¹, Mathias Beer¹, Lennart Hellweg¹, Lilia Sabantina^{1,2}

Self-regenerating polymer-based textiles mimic the ability of living organisms to heal injured skin and other minor injuries. To achieve this effect, either intrinsic or extrinsic methods can be used to allow polymeric compounds to heal this damage. Depending on the method, the handling and the results of the self-regenerating effect differ. This results in different areas of application. The focus of this paper is to discuss some of these potential applications as well as related research.

¹ Niederrhein University of Applied Sciences, Faculty of Textile and Clothing Technology, 41065 Moenchengladbach, Germany;

² Junior Research Group "Nanomaterials", Bielefeld University of Applied Sciences, Faculty of Engineering and Mathematics, 33619 Bielefeld, Germany;