

A Study on the Water and Oil Repellency Characteristics of Plasma-Treated Pet and Pet/Elastane Fabrics

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Abstract : New orientations have emerged in the textile sector as a result of increasing global competition and environmental problems. Under the scope of new understandings, it is required to bring forward multi-functional, simple and environmentally friendly methods that will meet tight economic and ecological demands of today. Plasma technology has become a significant alternative in this sense. This technology may provide great advantages in case it is developed, however, it does not receive adequate consideration. In this study, plasma treatment was applied by using glow discharge plasma system to 100% polyethylene terephthalate (PET) and 95% PET/5% elastane fabrics and then the effects of plasma polymerization on fabric surface was tested and analyzed using water and oil repellent finishes.

Keywords : plasma, polyester, elastane, water repellency, oil repellency

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